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An Assessment of the Implementation of
Total Quality Leadership
at
Marine Corps Logistics Base, Albany, Georgia

by

Gregory Kelly Cohen
Captain, United States Marine Corps
B.B.A., Texas A&M University, 1986

Submitted in partial fulfillment
of the requirements for the degree of

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from the

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ABSTRACT

The implementation of Total Quality Leadership (TQL) is a continuous process; consequently the Marine Corps Logistics Base (MCLB) in Albany, Georgia identified a need to assess their TQL implementation.

This study describes Marine Corps Logistics Base, Albany's TQL models and tools, identifies quality assessment guides, and selects the Department of the Navy's TQL Climate Survey as the guide that best meets the needs of the organization. The study also discusses the methodology of administering the survey and an analysis of the survey results.

The analysis revealed that the TQL philosophy is prevalent throughout MCLB, but actual implementation has not reached the lower levels of the organization. The study also identified a blockage of the implementation process at the first line supervisor level; it also revealed that the implementation has not yet reached the line worker level.

TABLE OF CONTENTS

I. INTRODUCTION	1
A. PURPOSE	1
B. OBJECTIVE	1
C. RESEARCH QUESTIONS	1
1. Primary Question	1
2. Subsidiary Questions	1
D. SCOPE, LIMITATIONS, AND ASSUMPTIONS	2
1. Scope	2
2. Limitations	2
3. Assumptions	3
E. METHODOLOGY	3
F. LITERATURE REVIEWED	5
G. ORGANIZATION OF THE THESIS	5
II. BACKGROUND	7
A. CHAPTER INTRODUCTION	7
B. MARINE CORPS LOGISTICS BASE, ALBANY	7
C. HISTORY OF TQL AT MARINE CORPS LOGISTICS BASE, ALBANY	8
1. Definition of TQL	10
2. MCLB TQL Organization	10
a. Executive Steering Committee	12

b.	Quality Leadership Boards (QLB)	12
c.	Process Action Teams	13
d.	Office/Shop TQL Teams	14
e.	Facilitators	14
f.	TQL Coordinator	15
D.	MCLB TOTAL QUALITY MANAGEMENT MODEL	15
1.	Establish the Management and Cultural Environment	16
2.	Define the Mission	17
3.	Set Performance Improvement Goals	18
4.	Establish Improvement Projects and Action Plans	18
5.	Implement Projects with Performance Tools and Methodologies	19
6.	Evaluate	19
7.	Review and Recycle	20
E.	MCLB'S TOOLS AND TECHNIQUES OF TOTAL QUALITY MANAGEMENT	20
1.	Improvement in Non-Production Functions	20
2.	Benchmarking	21
3.	Cause and Effect Diagrams	21
4.	Concurrent Engineering	21
5.	Cost of Quality	21
6.	Design of Experiments	22
7.	Input/Output Analysis	22
8.	Pareto Charts	22

9. Nominal Group Technique	23
10. Quality Function Deployment	23
11. Statistical Process Control	23
12. Team Building	24
13. Time Management	24
14. Work Flow Analysis	24
F. CHAPTER CONCLUSION	24
III. QUALITY ASSESSMENT GUIDES	26
A. CHAPTER INTRODUCTION	26
B. DESCRIPTION OF THE ASSESSMENT GUIDES	27
1. The Malcolm Baldrige National Quality Award	27
a. Background	27
b. Core Values and Concepts	28
(1) Customer-Driven Quality.	28
(2) Leadership	28
(3) Continuous Improvement.	28
(4) Full Participation.	28
(5) Fast Response.	29
(6) Design Quality and Prevention.	29
(7) Long-Range Outlook.	29
(8) Management by fact.	29
(9) Partnership Development.	29
(10) Public Responsibility.	29
c. Criteria	30
(1) Leadership.	30

(2) Information and Analysis.	30
(3) Strategic Quality Planning.	31
(4) Human Resource Development and Management.	31
(5) Management of Process Quality. . .	31
(6) Quality and Operational Results. .	32
(7) Customer Focus and Satisfaction. .	32
d. Grading	32
2. The Presidential Award for Quality	33
a. Background	33
b. Fundamental Concepts	33
c. Criteria	34
(1) Top Management Leadership and Support.	34
(2) Strategic Quality Planning.	34
(3) Customer Focus.	34
(4) Training and Recognition.	34
(5) Employee Empowerment and Teamwork. .	34
(6) Measurement and Analysis.	35
(7) Quality Assurance.	35
(8) Quality and Productivity Improvement Results.	35
d. Grading	35
3. The Quality and Productivity Self-Assessment Guide for Defense Organizations.	36
a. Staff Module	36

(1) Grading.	36
b. Work Force Module	37
(1) Grading	37
4. The Department of the Navy's Total Quality Leadership Climate Survey	37
a. Background	37
b. Prerequisites	37
c. Survey Description	38
(1) General Organizational Climate. . .	38
(2) Work Team Functioning.	39
(3) Job Characteristics.	39
(4) Worker Motivation.	40
(5) TQL Implementation.	40
(6) TQL Support.	40
d. Grading	41
(1) Profile Chart.	41
(2) Item Statistic Table.	41
(3) Breakout Table.	41
C. ASSESSMENT GUIDES	42
1. The Malcolm Baldrige National Quality Award and The Presidential Award for Quality . . .	42
a. Strengths	42
b. Limitations	42
2. The Quality and Productivity Self-Assessment Guide for Defense Organizations	43
a. Strengths	43

b. Limitations	43
3. The Department of the Navy's Total Quality Leadership Climate Survey	43
a. Strengths	43
b. Limitations	44
D. CHAPTER CONCLUSIONS	44
IV METHODOLOGY AND DATA	45
A. CHAPTER INTRODUCTION	45
B. ORGANIZATIONAL STRUCTURE	45
C. SURVEY DISTRIBUTION	47
1. Directorate Stratification	47
2. Division Stratification	47
3. Employee Level Stratification	48
4. Percentage Comparison	48
D. SURVEY ADMINISTRATION	48
1. Personnel Selection	49
2. Administering the Survey	49
E. DATA	50
F. CHAPTER CONCLUSIONS	50
V. ANALYSIS	51
A. CHAPTER INTRODUCTION	51
B. INTERPRETING THE DATA	51
C. DATA ANALYSIS	53
1. General Organizational Climate	53

a.	Organizational Clarity	53
b.	Effective Decision Making	53
c.	Interpersonal Conflict	54
d.	Focus Toward High Performance	54
e.	Support For Improvement	54
f.	Organizational Vitality	55
g.	Trust In Management	55
h.	General Organization Climate Trends . .	56
2.	Work Team Functioning	56
a.	Team Cohesion	56
b.	Team Goal Clarity	57
c.	Team Effectiveness	57
d.	Work Team Functioning Trends	57
3.	Job Characteristics	58
a.	Efficient Job Design	58
b.	Role Clarity	58
c.	Performance Contingencies	59
d.	Information Adequacy	59
e.	Situational Constraints	59
f.	Work Pressure	60
g.	Understanding Job-Organization Linkage .	60
h.	Task Significance	61
i.	Level of Employee Involvement	61
j.	Job Characteristic Trends	62
4.	Worker Motivation	63
a.	Job Satisfaction	63

b.	Turnover Intentions	63
c.	Worker Motivation Trends	64
5.	TQL Implementation	64
a.	Leadership Involvement in Quality Performance	64
b.	TQL Planning	64
c.	External Customer Orientation	65
d.	Internal Customer Orientation	65
e.	External Supplier Quality	66
f.	Internal Supplier Orientation	66
g.	Process Management	67
h.	Barriers to Pride In Workmanship	67
i.	Intergroup Cooperation	67
j.	Barriers Between Departments/Directorates	68
k.	Knowledge of TQL	68
l.	TQL Implementation Trends	69
6.	TQL Support	69
a.	Commitment to TQL	69
b.	Perceived Benefits of Implementing TQL .	70
c.	Fear of Implementing TQL	70
d.	Leadership Support for TQL	71
e.	Anticipated TQL Success	71
f.	TQL Support Trends	72
D.	CHAPTER CONCLUSIONS	72

VI	CONCLUSIONS AND RECOMMENDATIONS	73
A.	OVERVIEW	73
B.	CONCLUSIONS IN RELATIONSHIP TO RESEARCH QUESTIONS	74
C.	GENERAL RECOMMENDATIONS	76
APPENDIX A	. . . . .	77
APPENDIX B	. . . . .	87
APPENDIX C	. . . . .	89
APPENDIX D	. . . . .	99
BIBLIOGRAPHY	. . . . .	184
INITIAL DISTRIBUTION LIST	. . . . .	186

I. INTRODUCTION

A. PURPOSE

This study assessed whether the Total Quality Leadership (TQL) implementation at Marine Corps Logistics Base, Albany, Georgia was successful, delineated selected methods of evaluating quality, and presented a guide for organizations to evaluate their TQL programs.

B. OBJECTIVE

Literature sources on TQL and methods to evaluate the quality programs of organizations are reviewed. This information is used to locate a guide for assessing the effectiveness of an organization's TQL program, in particular, TQL at Marine Corps Logistics Base, Albany, Georgia.

C. RESEARCH QUESTIONS

1. Primary Question

To what extent was Total Quality Leadership successfully implemented at Marine Corps Logistics Base, Albany, Georgia?

2. Subsidiary Questions

a. What process can be used to judge the effectiveness of Total Quality Leadership at a military organization?

b. How far along is Marine Corps Logistics Base, Albany in implementing TQL?

c. What barriers or obstacles exist, if any, to implementing TQL at Marine Corps Logistics Base, Albany and how might they be overcome?

d. Can a process be developed that will provide other military organizations with a method to evaluate the effectiveness of their TQL program?

D. SCOPE, LIMITATIONS, AND ASSUMPTIONS

1. Scope

This thesis only covers the implementation of Total Quality Leadership (TQL) at Marine Corps Logistics Base, Albany, Georgia. This study's intention is to familiarize the reader with the TQL process at Marine Corps Logistics Base, Albany, to determine various ways of measuring TQL effectiveness at Marine Corps Logistics Base, Albany, to assess the effectiveness of implementing TQL at Marine Corps Logistics Base, Albany, and to determine if a process can be developed that will provide other military organizations with a method to evaluate the effectiveness of their TQL programs.

2. Limitations

There are two limitations that were encountered during the preparation of this thesis. The limitations were in the area of financial resources and survey use. Due to budget cuts in fiscal year 92 and projected budget cuts in fiscal

year 93 the availability of travel funds was limited. Though the research trip was completed, the shortage of funds delayed the data gathering approximately three weeks. The survey has a built in limitations in that it requires the honesty of each participant and it assumes a high enough reading comprehensive level to ensure accurate responses.

3. Assumptions

This thesis assumed the reader already possessed general knowledge of Total Quality Leadership and familiarity with Doctor W. Edward Deming's fourteen points of management, but has limited knowledge on how TQL was implemented at Marine Corps Logistics Base, Albany, Georgia, what model was used to implement TQL, what tools and techniques are used in the TQL process and what methods were used to evaluate the effectiveness of an organization's TQL progress.

This research will provide the Marine Corps Logistics Base, Albany with information about the status of their TQL implementation. Finally, other organizations may benefit from this thesis as they attempt to evaluate their TQL programs. Other military organizations should be able to follow the assessment of Albany and apply it to their organization's TQL effort.

E. METHODOLOGY

This study outlines the TQL methods and tools and techniques used by Marine Corps Logistics Base, Albany,

methods used to assess TQL organizations and assesses the effectiveness of TQL implementation at Marine Corps Logistics Base, Albany. Quality management methods developed by Dr. W. Edwards Deming and those used by the Department of the Navy were assessed to gain an understanding of the philosophy. To develop concrete criteria for assessing Albany's TQL progress, the following sources were examined: the Malcolm Baldrige Award, the Presidential Award for Quality and Productivity Improvement, the Quality and Productivity Self-Assessment Guide for Defense Organization, and the Department of the Navy's Total Quality Leadership Climate Survey.

The organization was grouped into three major departments, and each department was given a percentage of surveys based on its size compared to the whole organization. The survey that was used was the Department of the Navy's Total Quality Leadership Climate survey developed by the Navy Personnel Research and Development Center (NPRDC).

Also, a field trip was taken to the Marine Corps Logistics Base, Albany, Georgia to assess the effectiveness of their TQL program. During the trip a survey was administered to a cross section of organizational members and an informal interview was conducted with Martha Cory, the base TQL coordinator.

The data gathered on the research trip is analyzed by the mean score provided by the respondents. This data will be analyzed to discover strengths and opportunities for improvements and it will be compared to the TQL model and

tools and techniques the organization is using to discover where corrections can be made.

F. LITERATURE REVIEWED

The literature provided by Marine Corps Logistics Base, Albany was reviewed in order to understand the command's TQL background and quality philosophies. This review included their TQL Policy and Implementation Guide, TQL Organizational "How To" Manual, Organization Manual, Strategic Plan, TQL Statement of Purpose, and Quality "Bill of Rights".

Literature on Deming's fourteen points was reviewed along with additional literature by Walton (1986)(1990), which further explained Deming's philosophy. Numerous articles from management and professional journals were reviewed in order to provide a better understanding of TQL and the benefits of using TQL.

G. ORGANIZATION OF THE THESIS

This thesis is divided into six chapters, beginning with Chapter I which introduces the subject, justifies the research, lists the research questions, and explains its scope and limitations, its methodology, the literature reviewed, and the organization of the thesis. Chapter II contains background on TQL and on the TQL method and the tools and techniques used at Marine Corps Logistics Base, Albany. Chapter III outlines selected methods used to assess the

effectiveness of TQL implementation in both the public and private sectors and states which method was chosen to assess the TQL implementation at Marine Corps Logistics Base, Albany. Chapter IV details the methodology that was used to collect the survey data and provides the raw data collected from the field trip. Chapter V analyzed the data and Chapter VI offers conclusions and some general recommendations.

II. BACKGROUND

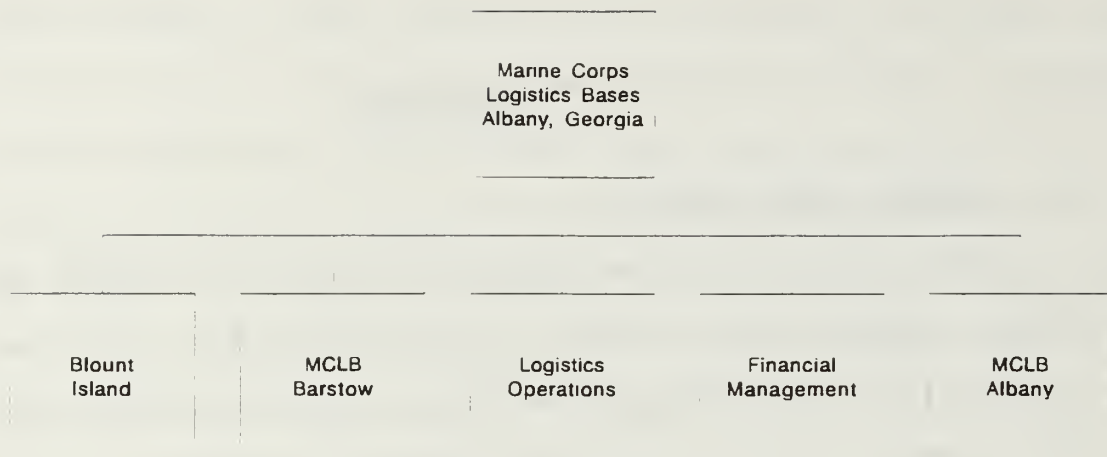
A. CHAPTER INTRODUCTION

This chapter contains background material on TQL at Marine Corps Logistics Base, Albany. Section B briefly describes the organization's mission and presents an organizational chart of the command. Section C briefly relates the genesis of the TQL initiative and provides basic definitions and an organizational overlay of the TQL structure. Section D describes the TQL model used by the organization and Section E describes some tools and techniques used by them in their TQL effort.

B. MARINE CORPS LOGISTICS BASE, ALBANY

The Marine Corps Logistics Base in Albany, Georgia is comprised of approximately 3,500 military and civilian personnel. The mission of the base, as stated in the strategic plan, is to provide comprehensive logistics support to the Fleet Marine Force and other customers for assigned operating and combat requirements through timely, efficient, effective and pro-active operations.

Figure 1 shows the organizational structure of Marine Corps Logistics Base, Albany. Since this thesis covers TQL implementation at MCLB, Albany, the Blount Island and MCLB,



MCLB Organizational Structure
Figure 1

Barstow portions of the organization will not be discussed.

C. HISTORY OF TQL AT MARINE CORPS LOGISTICS BASE, ALBANY

Total Quality Leadership at Marine Corps Logistics Base, Albany, began in 1989 when the base published its TQL organization "How to" manual. This publication was followed up by the Commanding General's policy statement, which emphasized the command's commitment to the implementation and execution of TQL.

During 1990 the base released its Total Quality Leadership Concept, Policy and Implementation Guide. This guide was followed by another Commanding General's Policy Statement which reiterated the organization's commitment to TQL. The base then published its Statement of Purpose and the key implementation team signed its charter which outlined its authority to implement TQL.

During 1991, the Commanding General attended the Senior Leaders Seminar in TQL and the base established a permanent TQL Office. The base published its Strategic Plan and distributed copies to all management personnel. The strategic plan detailed the organization's strategies, goals objectives, and vision statement.

The Marine Corps Logistics Base Vision Statement:

By the year 2001, MarCorLogBases is recognized as an integral partner with the FMF and other customers. We provide a wide range of high quality and efficient logistics related services that are clearly valued because they meet the current and future needs of our customers. Marine Corps fielded weapon systems and equipment are routinely maintained in a high state of readiness. MarCorLogBases is recognized as the standard setter for environmental excellence.

We are more customer service oriented providing more direct support base activities and 4th echelon overflow maintenance. A portion of our resources are devoted to managing weapon systems and equipment for customers outside the Marine Corps. We have implemented the DoD Standard Systems and Defense Management Report Decision (DMRD) initiatives in such a manner as to minimize impact on the FMF.

Our people readily identify with their customers, and our customers accept them as key partners. Our people have the necessary information and authority to act without undue oversight and paperwork.

MarCorLogBases is widely recognized as a challenging, exciting, and rewarding team with which to be associated. We are vitally concerned for our people and stress their personal and professional growth by providing robust education and training programs and career enhancing job assignments. Worldwide our people are recognized for their expertise in all aspects of integrated logistics management. Reserve organization provide a ready source of highly qualified and well trained personnel to augment regular staff. We emphasize quality of work life for our

people and provide a work environment commensurate with the professional character of our organization.

Teamwork is the norm in both internal and external relations. We have strong, professional relationships with other command, our suppliers and our customers. These are based on open communications, sound business practices, and mutually beneficial associations.

We have proven to be worthy of the public trust, dedicated to outstanding support of our customers. We maintain both a future focus and the daily drive for continuous improvement. We are committed to continually improving our products and services and are viewed as highly ethical steward of the public trust.

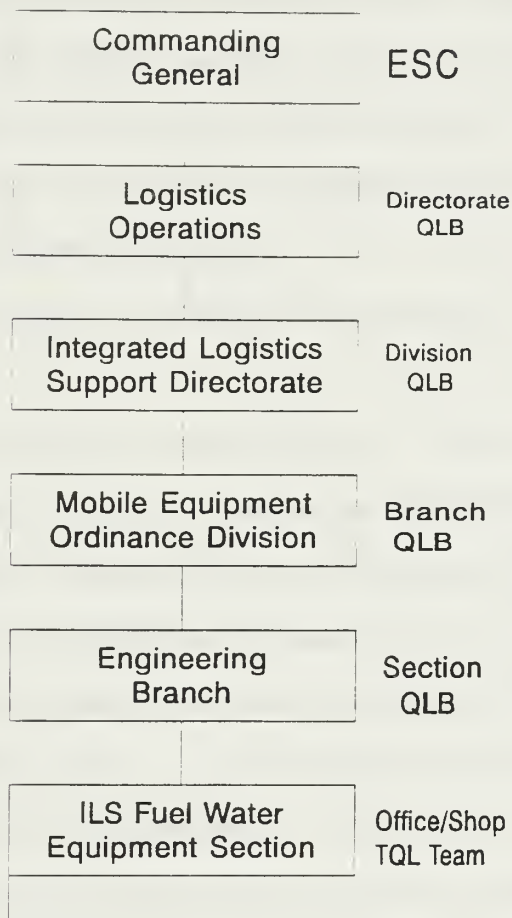
1. Definition of TQL

Total Quality Leadership at MCLB as defined in the TQL Organization Manual is the predominant driving force in the organization to enhance their competitive posture. They believe that TQL is a comprehensive approach to management that uses quantitative methods and human resources to control and continuously improve processes and customer satisfaction. It is based upon Dr. W. E. Deming's fourteen management principles as they can be applied to the command.

2. MCLB TQL Organization

The MCLB TQL structure is designed to overlay on the existing organizational structure. The TQL organization begins at the ESC level and expands down in pyramid fashion. Directorate, Division, Branch, and Section Quality Leadership Board's are assigned. They overlay on the existing organizational structure, and are staffed by existing personnel.

Figure 2 shows part of the organizational structure of Marine Corps Logistics Base, Albany and how the TQL structure overlays on the current organizational structure.



TQL Overlay on Organizational Structure
Figure 2

The six important groups in the Marine Corps Logistics Base TQL overlay are: the Executive Steering Committee (ESC), Quality Leadership Boards (QLB), Process Action Teams (PAT), Office/Shop TQL Teams, Facilitators, and TQL Coordinators. The following paragraphs outline the duties of each entity as established in the TQL Organizational "How To" Manual.

a. Executive Steering Committee

The ESC is a committee composed of top management representatives. It identifies strategic goals to be accomplished and establishes the policy for implementing TQL. This committee provides the ultimate level of support for Quality Leadership Boards and Process Action Teams. The ESC is chaired by the Commanding General. Other members are the Executive Director for Logistics Operations, the Executive Director for Financial Management, the Base Commander, and the Chief of Staff.

The ESC is responsible for identifying strategic goals for organizational quality improvements efforts by obtaining from customers major product and service quality requirements. It is through the identification of these major requirements that overall quality objectives and goals for the organization are developed. The ESC's other major responsibility is to legitimize and guide quality implementation. The ESC also supports TQL implementation by granting authority for change in the organization.

b. Quality Leadership Boards (QLB)

The QLB's are hierarchial, cross functional linked teams comprised of members from relevant areas, i.e., directorates, divisions, branches, etc. They provide the organizational structure that eliminates friction between various organizational units and directs the use of group

problem solving techniques. The QLB's are permanent and oversee continual process improvement. The QLB chair is normally the principal director/division branch head of the functional organization in which the QLB was created. Other members of the QLB are normally the managers from that particular functional area and managers who have the responsibility to work with or support the work efforts of the area in which the QLB operates.

The QLB fosters internal and external communications with its functional area to affect process improvement and problem resolution. The board initiates communication and worker feedback as well as improvement recommendations at the lowest level. The QLB selects issues, quantifies issues, determines desired results, determines specific processes, problems or systems that affect the issue, determine if immediate action is required to solve the issue, and if the action can be done by the QLB. If the QLB cannot resolve the issue then, in most cases, a PAT is formed.

c. Process Action Teams

The PATs are cross-sectional problem solving groups that are specifically formed to address particular concerns and dissolve upon completion of their work. The PAT team leader is usually a section head, supervisor, team leader, etc., who possesses the authority or technical expertise in the subject for which the PAT was formed. Members are chosen

for their expertise and functional responsibility. The members are individuals who deal with the process being examined on a daily basis and internal customers who are affected by the process.

The QLB assigns the PAT specific issues and improvement goals. Also, the PAT is responsible for evaluating systems, programs, processes and gathering data. The PAT provides findings, recommendations and follow-up corrective actions to the QLB.

d. Office/Shop TQL Teams

The office/shop TQL teams review process improvement (PI) forms submitted by employees from their own office/shop. These TQL teams have at least three members which consist of the supervisor and a minimum of two people elected by the shop employees.

The team is responsible for monitoring shop processes and for taking action to improve those processes when necessary. The team is required to take intra-office process PI forms for action, but if the PI form crosses functional lines of authority, the team will forward the PI form to the next level QLB.

e. Facilitators

Facilitators are in-house personnel selected and trained to serve as trainers and consultants to the various QLBs and PATs. The facilitator maintains a neutral position

between management and the board/team members. They act to resolve conflicts between the PAT and QLB and assist in the resolution of problems within the PATs.

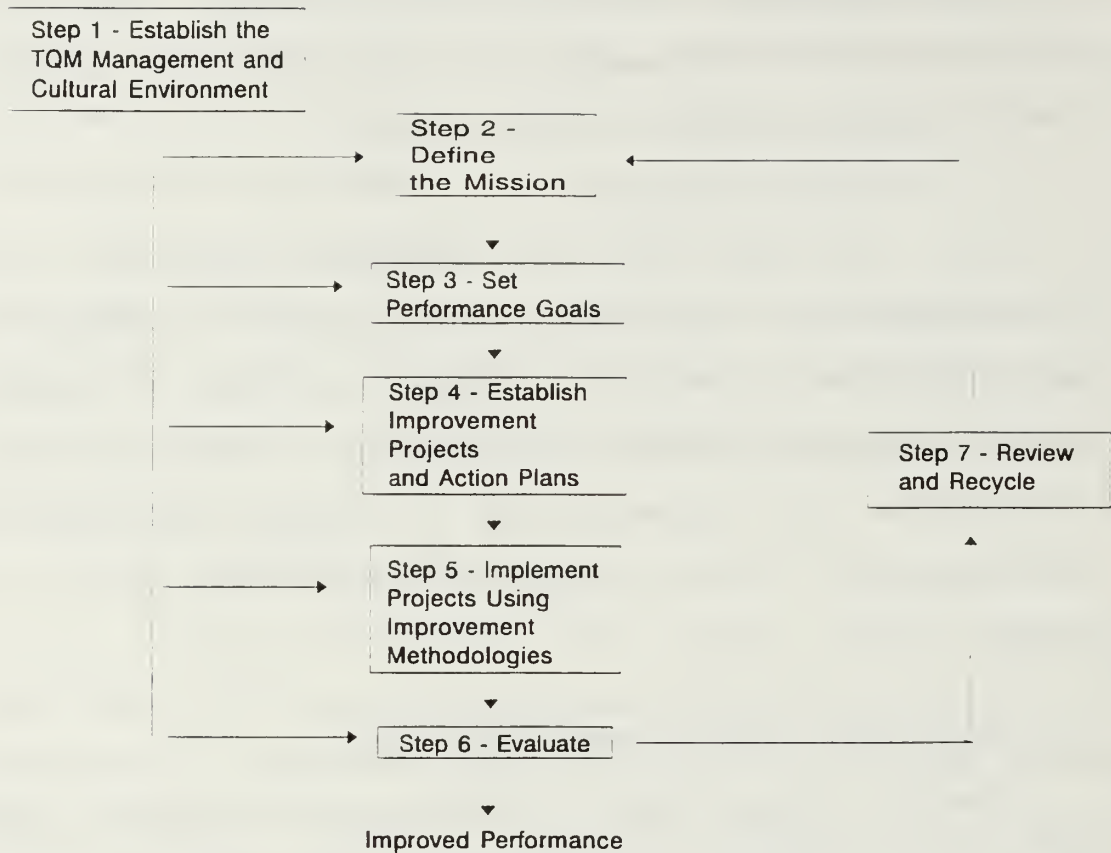
f. TQL Coordinator

The TQL Coordinator monitors, plans and collects information about implementation progress and assists with administrative or other arrangements which may be needed to ensure implementation activities continue. This individual is responsible for implementation of policy and operational administrative initiatives pertaining to the overall TQL effort.

D. MCLB TOTAL QUALITY MANAGEMENT MODEL

This section provides an overview of the TQL model adopted by the Marine Corps Logistics Base. With this information, the reader will gain a general understanding of TQL, as practiced by MCLB, and its usefulness to improve quality and its purpose and value.

The MCLB has defined its TQL model as a model for continuous improvement which focuses management philosophy on providing the leadership, training and motivation to continuously improve an organization's management and operations. To accomplish this, they have chosen a seven-step sequential model that will lead to continuous performance improvement. The seven steps as defined in MCLB Base Order 5000.21 are listed below and shown in Figure 3.



MCLB TQL Model
Figure 3

1. Establish the Management and Cultural Environment

The TQL process is a total organizational approach toward continuous improvement of products and services that requires management to exercise the leadership to establish the conditions for the process to flourish. In order to accomplish this, management must create a new, more flexible environment and culture which will encourage and accept change.

Management must provide the vision for what the organization wants to be and where it wants to go. The organization must demonstrate a long-term commitment to improvement even when improvement may be difficult or perceived to have high front-end costs. Commitment must entail more than new policies, directives, and speeches; it must be backed by behavior from management that supports the commitment. The organization must actively involve all people in the improvement process; it must encourage and empower people to make decisions and improve the system.

TQL must use a disciplined approach involving the appropriate tools to achieve continuous improvement. Persistent, disciplined application of continuous improvement methodology is a must for success. There must be adequate supporting structure in place to ensure each level is linked to the other by common objectives. Finally, all employees must be made aware of the need for and benefits of TQL, and they must be trained in the use of tools and techniques to support continuous improvement.

2. Define the Mission

Everyone in the organization has a customer and TQL concentrates on providing customers with services and products that consistently meet their needs and expectations. In order to be effective, every member of the organization must know the purpose of his job, his customers, and his relation to

others in the organization. The mission of each element of an organization must reflect a perspective that, when combined with other elements of the organization, will provide the synergy that produces TQL.

3. Set Performance Improvement Goals

In order to be effective, the performance improvement goals must reflect an understanding of the process capabilities of the organization so realistic goals can be set. The goals are first to be set at the senior management level and are to reflect strategic choices about the critical processes in which success is essential to organizational survival. Middle and line managers set both functional and process improvement goals to achieve the strategic goals set by senior management. This hierarchy of goals establishes an architecture that links improvement efforts across the boundaries of the organization.

4. Establish Improvement Projects and Action Plans

The initial direction and the initial goals for continuous improvement teams flow down from and are determined by top management. The ESC, composed of top management, develops philosophy, constancy of purpose, and guiding principles. It also focusses on critical processes that affect customer satisfaction and/or major cost or waste and identifies a QLB as an "owner" of each critical process. The QLB conducts system and process analysis, selects PAT's,

trains the teams, develops improvement plans, tracks progress and provides help, if necessary, and trains and provides facilitators to support the PAT's. The PAT's apply a structured performance improvement methodology as described in step 5.

5. Implement Projects with Performance Tools and Methodologies

The basic performance improvement cycle is used after material is received from the supplier and before the finished product is sent to the customer. The six steps in the performance improvement cycle are: Define Process, Identify Customer and Supplier Requirements, Develop and Establish Measures, Assess Conformance to Customer Needs, Analyze Improvement Opportunities, Identify and Rank Improvement Opportunities, and Improve Process Quality.

6. Evaluate

When evaluating the TQM effort, measurement becomes an essential element of the continuous improvement process. The evaluation focuses on the effectiveness of improvement efforts and identifies areas for future improvement efforts. Four areas the organization will evaluate by measurement are process measurement, project measurement, behavioral change measurement and quality loss function.

7. Review and Recycle

Approaches to TQM tend to have a limited survival and, if left unattended, will become ineffective. All employees must review progress with respect to improvement efforts and modify or rejuvenate existing approaches for the next progression of methods. This constant evolution will reinforce the idea that TQM is not a program but a new day to day behavior for each member of the organization.

E. MCLB'S TOOLS AND TECHNIQUES OF TOTAL QUALITY MANAGEMENT

This section provides the reader with an overview of the tools and techniques used by the Marine Corps Logistics Base to improve its processes. They are representative of the tools used to improve any process and are presented to provide a basic understanding of what they are and why they are used. MCLB Base order 5000.21 has identified fourteen tools and techniques that can be used to improve the organization's processes.

1. Improvement in Non-Production Functions

Often, management does not consider non-production functions because the traditional view of TQL focuses on the manufacturing process. To make improvement in non-production activities, the organization needs to identify the process, its inputs and outputs, and its customers and suppliers. Non-production activities benefit from quality improvement just as production activities benefit.

2. Benchmarking

Benchmarking is a method of measuring a process against those of recognized leaders, and it helps to establish priorities and targets leading to competitive advantage in the marketplace. Benchmarking will assist the organization by letting it compare itself to its competitors.

3. Cause and Effect Diagrams

The cause and effect diagram represents the relationship between an effect and its potential causes. The diagram is drawn to sort and relate the interactions among the factors affecting a process. This tool identifies the major causes, so the organization can work on controlling or eliminating them.

4. Concurrent Engineering

Concurrent engineering is a method of integrating functional disciplines such as manufacturing and design. It is a systematic approach to product design that considers all elements of the product life cycles. This approach can be used to shorten the design-to-development life cycle and to reduce costs by examining the interaction of functional disciplines from the perspective of a cross-functional process.

5. Cost of Quality

Cost of quality is a system which provides managers with cost details often hidden from them. These costs consist

of all costs associated with maintaining acceptable quality plus the costs incurred as a result of failure to achieve this quality.

For example, the cost of quality is comprised of the cost of conformance and the cost of non-conformance. By identifying and reducing these costs the organization can become more competitive through the use of a cost efficient process.

6. Design of Experiments

Design of experiments is a body of knowledge used to improve the process of learning from experimentation. The learning gathered from the experimentation enables improved process design. This reduces costs, stabilizes production processes, and desensitizes production variables.

7. Input/Output Analysis

This is a systematic method for identifying interdependency problems by defining objectives and listing inputs and outputs for major tasks, functions, or individuals. Input/output analysis clarifies roles and responsibilities, eliminates duplications, and opens lines of communication as well as resolves conflicts to ensure everybody in the process is working toward the same outputs.

8. Pareto Charts

A pareto chart is a bar chart which is arranged in descending order with the largest category to the left. Each

bar represents a problem, and the chart displays the relative contribution of each cause to the total problem. The pareto chart makes clear which problems, by category, should be addressed first.

9. Nominal Group Technique

This technique is similar to brainstorming and is a structured approach to generate ideas and survey the opinions of others. Nominal group technique produces many ideas/solutions in a short time and it builds consensus and commitment to the final results.

10. Quality Function Deployment

This technique is a conceptual map that provides the means for cross-functional planning and communication. It is a method for transforming customer wants and needs into quantitative engineering terms. All personnel work together from the time a product is conceived in order to meet customer requirements. Quality function deployment provides the framework for the cross-functional teams to work within.

11. Statistical Process Control

This technique is a method for determining the cause of variation based on statistical analysis of the problem. It is an effective tool for improving performance of any process. It also provides quantifiable data for analysis, provides a reference baseline, and promotes participation and decision making by people doing the job.

12. Team Building

Team building is designed to develop and maintain a group who will work together for a common goal. When a job requires interdependence among the people working on the job, it is a management must to ensure that these people can and will work together smoothly.

13. Time Management

An important aspect of TQL, time management assists in gaining greater flexibility and control of activities. Since the majority of personnel who are implementing TQL are busy, time management assists in increasing discretionary time which can be applied to improvement efforts.

14. Work Flow Analysis

Work flow analysis is a structured system to improve a work process by eliminating unnecessary tasks and streamlining the work flow. Since there is almost always a better or easier way to do things, work flow analysis identifies and eliminates unnecessary process steps by analyzing functions, activities, and tasks.

F. CHAPTER CONCLUSION

This chapter presented the mission and organization structure of MCLB Albany, key definitions and an overlay of TQL on the organizations structure. The chapter also described the MCLB, Albany TQL model and tools and techniques that are used by MCLB in their TQL effort.

Many TQL efforts don't meet expectations because organizations fail to distinguish between philosophy and strategy. First, the organization has to sell the philosophy of gaining commitment to satisfying customers. After instilling the TQL philosophy it must develop a strategic framework for implementation. Many TQL efforts are thwarted by ineffective execution of the TQL philosophy (McCormack, 1992).

Chapter III will examine four methods to evaluate a TQL organization to determine if it is effective in implementing TQL. It will also determine if these methods can identify problem areas so the organization can get its TQM philosophy and strategic framework in line.

III. QUALITY ASSESSMENT GUIDES

A. CHAPTER INTRODUCTION

As an organization implements TQL, there becomes a need to evaluate the process to determine if it is working, and, if not, where problems are located. This chapter examines four methods used for evaluating an organization's quality improvement methods and for identifying areas where improvement is required. The strengths and limitations of each evaluation method will be examined and a method will be chosen to evaluate MCLB, Albany.

Americans are accustomed to seeing work projects in a linear fashion, but continuous improvement requires instead a circular approach in order to be effective. Dr. Deming introduced the Plan-Do-Check-Act (PDCA) cycle to the Japanese years ago. The Cycle has four stages: plan a change, do a test, check the results, and act on the results. The cycle represents work on processes rather than specific tasks or problems because processes can never be perfected but only improved (Walton, 1990).

The Marine Corps Logistics Base has completed the first two steps in the PDCA Cycle. They have planned the implementation of TQL, and they have reached a point in their implementation of TQL where the next logical step is for them

to check the results of the implementation so they can identify areas that need improvement and take the necessary steps to correct the process.

The assessment guides that were reviewed for this check stage were the Malcolm Baldrige National Quality Award, the Presidents Award for Quality, the Department of Defense's Quality and Productivity Self-Assessment Guide for Defense Organizations, and the Department of the Navy's Total Quality Leadership Climate Survey.

B. DESCRIPTION OF THE ASSESSMENT GUIDES

1. The Malcolm Baldrige National Quality Award

a. Background

The Malcolm Baldrige National Quality Award is an annual award which recognizes U.S. companies that excel in quality management and quality achievement. The award has three other important purposes:

(1) to help evaluate quality standards and expectations;

(2) to facilitate communication and sharing among and within organizations of all types based upon common understanding of key quality requirements; and

(3) to serve as a working tool for planning, training, assessment, and other uses.

The award's criteria are directed toward results-orientated goals. To achieve these results-orientated goals,

the criteria are built upon a set of values and concepts that address and integrate the overall customer and company performance requirements.

b. Core Values and Concepts

(1) *Customer-Driven Quality.* Quality is judged by the customer. All product and service attributes that contribute value to the customer and lead to customer satisfaction and preference must be addressed appropriately in quality systems.

(2) *Leadership.* The senior leaders must create clear and visible quality values and high expectations. The leaders must take part in the creation of strategies, systems, and methods for achieving excellence. Through their regular personal involvement in visible activities, the senior leaders serve as role models reinforcing the values and encouraging leadership at all levels of management.

(3) *Continuous Improvement.* Achieving the highest levels of quality and competitiveness requires a well defined and well executed approach to continuous improvement. The process of continuous improvement must contain regular cycles of planning, execution and evaluation.

(4) *Full Participation.* Meeting the quality of performance objectives requires a fully committed, well-trained, and involved work force.

(5) *Fast Response.* Success demands a more rapid response to customers. Response time improvements may require work processes and paths to be simplified and shortened. This can simultaneously cause improvements in quality and productivity.

(6) *Design Quality and Prevention.* Quality Systems should place strong emphasis on design quality. Design quality will help assist in problem prevention through building quality into products and services and into the processes through which they are produced.

(7) *Long-Range Outlook.* Achieving quality requires future orientation and long-term commitments to customers, employees, and suppliers. Strategies, plans, and resource allocation need to reflect these commitments. A key part of the long-term commitment is regular review and assessment of progress relative to long-term plans.

(8) *Management by fact.* Meeting quality and performance goals requires that process management be based upon reliable information, data, and analysis.

(9) *Partnership Development.* Companies should seek to develop internal and external partnerships that serve mutual and larger community interests.

(10) *Public Responsibility.* A company's customer requirements and quality system objectives should address areas of corporate citizenship and responsibility.

c. Criteria

The criteria for the Malcolm Baldrige Award are divided into a framework of four basic elements: the driver, the system, the measure of progress, and the goal. These four elements are broken down into seven categories that are further subdivided into examination items and areas to address. The seven categories that compose the criteria are: leadership, information and analysis, strategic quality planning, human resource development and management, management of process quality, quality and operational results, and customer focus and satisfaction.

(1) *Leadership.* This category examines senior executives' personal leadership and involvement in creating and sustaining a customer focus and clear and visible quality values. The leadership category has three specific examination items:

- Senior Executive Leadership
- Management Quality
- Public Responsibility

(2) *Information and Analysis.* This category examines the scope, validity, analysis, management, and use of data and information to drive quality excellence and improve competitive performance. This category has three specific examination items:

- Scope and Management of Quality and Performance Data and Information

- Competitive Comparisons and Benchmarks
- Analysis and Uses of Company-level data

(3) *Strategic Quality Planning.* This category examines the company's planning process and how all key quality requirements are integrated into overall business planning. This category has three specific examination items:

- Strategic Quality and Company
- Performance Planning Process
- Quality and Performance Plans

(4) *Human Resource Development and Management.* This category examines the key elements of how the company develops and realizes the full potential of the work force to pursue the company's quality and performance objectives. There are five specific examination items for this category:

- Human Resource Management
- Employee Involvement
- Employee Education and Training
- Employee Performance and Recognition
- Employee Well-Being and Morale

(5) *Management of Process Quality.* This category examines the systematized processes the company uses to pursue ever-higher quality and company performance. This category has five specific examination items:

- Design and Introduction of Quality Products and Services
- Process Management-product and Service production and Delivery Processes

- Process Management-Business Processes and Support Services
- Supplier Quality
- Quality Assessment

(6) *Quality and Operational Results*. This category examines the company's quality levels and improvement trends in quality, company, operational performance, and supplier quality. This category has four specific examination items:

- Product and Service Quality Results
- Company Operational Results
- Business Process and Support Service Results
- Supplier Quality Results

(7) *Customer Focus and Satisfaction*. This category examines the company relationship with customers and its knowledge of customer requirements and of key quality factors that determine marketplace competitiveness. This category has six specific examination items:

- Customer Relationship Management
- Commitment to Customers
- Customer Satisfaction Determination
- Customer Satisfaction Results
- Customer Satisfaction Comparison
- Future Requirements and Expectation of Customers

d. Grading

Scoring for the Malcolm Baldrige Award is based upon three evaluation dimensions: (1) approach, (2)

deployment, and (3) results. Each category is evaluated and assigned a percentage score based upon scoring guidelines and dimensions.

2. The Presidential Award for Quality

a. Background

The Annual Presidential Award for Quality was created to recognize federal government organizations that have implemented total quality management in an exemplary manner, resulting in high quality products and services, and the effective use of taxpayer dollars. Its second purpose is to promote TQM awareness and implementation throughout the Federal Government.

b. Fundamental Concepts

There are six fundamental concepts that form the breakdown for the grading criteria. They are:

- (1) quality is defined by the customer
- (2) the organization is driven by continuous improvement
- (3) the focus is on prevention of errors rather than detection
- (4) everyone participates in quality improvement
- (5) senior management creates quality values and builds the values into the way the organization operates
- (6) employees are valued and recognized for their involvement and accomplishments

c. Criteria

From these fundamental concepts, eight grading criteria are used for the Presidential Award for Quality.

(1) *Top Management Leadership and Support.* This category examines how all levels of senior management create and sustain a clear and visible quality value system along with a supporting management system to guide all activities of the organization.

(2) *Strategic Quality Planning.* This category examines the organization's quality planning process, quality plans, and how well all key quality requirements are integrated into overall planning.

(3) *Customer Focus.* This category examines the organization's overall customer service systems, knowledge of internal and external customers, responsiveness and ability to meet requirements and expectations.

(4) *Training and Recognition.* This category examines the organization's efforts to develop the full potential of the workforce for quality improvement, as well as its efforts to use rewards and incentives to recognize individuals.

(5) *Employee Empowerment and Teamwork.* This category examines the effectiveness and extent of workforce involvement in TQM, and the approaches used to enhance employee empowerment.

(6) *Measurement and Analysis.* This category examines the scope, validity, use, and management of data and information that underlie the organization's TQM system, how the data are used to support improvement, and the process for developing measures.

(7) *Quality Assurance.* This category examines the systematic approaches used by the organization to design, control, and improve processes and inputs to produce quality products and services. Emphasis is on prevention rather than detection.

(8) *Quality and Productivity Improvement Results.* This category examines the measurable results of the organization's quality improvement efforts. Data tables and graphs summarizing trends and achievements should be utilized as much as possible.

d. Grading

Scoring for the Presidential Award for Quality is based on two dimensions: (1) approach, and (2) implementation. Each criteria is evaluated and assigned a percentage score based upon scoring guidelines and dimensions.

The organization is first graded on the self-prepared package they submit. If the organization's package passes the first stage, a team from the Federal Quality Institute goes to the organization and evaluates them.

3. The Quality and Productivity Self-Assessment Guide for Defense Organizations.

This guide is divided into two modules: (1) The Staff Module, and (2) The Work Force Module.

a. Staff Module

The staff module was designed for several purposes: (1) to provide an assessment of the current practices, policies, procedures, and attributes throughout an organization as they relate to quality enhancement; (2) to give opportunity to assess the effect of any changes as they relate to quality enhancement through periodic reuse of the guide; (3) to stimulate thinking about some of the tools and techniques which can be used for quality enhancement and to help discover areas where there may be opportunities for improvement.

(1) *Grading.* The self-assessment guide for the staff consists of 104 questions that provide feedback to the individual in the following categories.

- Processes
- Tools Inventory
- Organizational Outcomes

Upon receiving the feedback, the guide directs the individual to references so they can improve their quality awareness.

b. Work Force Module

The work force module is intended to help stimulate thinking about the climate for quality within the organization.

(1) *Grading.* The self-assessment guide for the work force consists of 50 questions that provide feedback about organizational climate.

4. The Department of the Navy's Total Quality Leadership Climate Survey

a. Background

The TQL Climate Survey is a diagnostic tool designed to support an organization's transformation toward Total Quality Leadership. The survey was developed by the Navy Personnel Research and Development Center (NPRDC), San Diego, California. The survey was designed to measure employee and management perceptions and attitudes about their organization. The survey was designed with the belief that all organizations undergoing a change to TQL can benefit from an assessment. The NPRDC lists seven prerequisites for using the survey (NPRDC, 1992).

b. Prerequisites

There are seven prerequisites that are necessary for using the TQL Climate Survey. They are:

(1) The CO has attended the Senior Leaders Seminar.

(2) The TQL Coordinator (TQLC) has attended fundamentals of TQL and Implementing TQL courses.

(3) Management is willing to maintain confidentiality of respondent identity.

(4) Each organizational member selected to respond to the TQLCS is provided at least one hour of work time to take the survey.

(5) The CO provides time and resources to plan, administer and interpret the results.

(6) Management is willing to take action on the basis of the survey's results.

(7) The ESC will develop an interpretation plan (NPRDC, 1992).

c. Survey Description

The survey consists of six major categories: general organizational climate, work team functioning, job characteristics, worker motivation, TQL implementation and TQL support. The six major categories are divided into sub-categories that allow for more in-depth analysis of the results, (NPRDC, 1992).

(1) *General Organizational Climate.* This section consists of seven sub-categories that measure various aspects of the organizational climate.

- Organizational Clarity
- Effective Decision Making

- Interpersonal Conflict
- Focus Toward High Performance
- Support for Improvement
- Organizational Vitality
- Trust in Management
- Work Team Functioning

(2) *Work Team Functioning*. This section is divided into three sub-categories and is based on the effect work teams have on worker attitudes and performance.

- Team Cohesion
- Team Goal Clarity
- Team Effectiveness

(3) *Job Characteristics*. This section consists of nine sub-categories which measure the characteristics that affect worker attitudes and performance.

- Efficient Job Design
- Role Clarity
- Performance Contingencies
- Information Adequacy
- Situational Constraints
- Work Pressure
- Understanding Job-Organization Linkage
- Task Significance
- Level of Employee Involvement

(4) *Worker Motivation.* This section consists of two sub-categories which measure worker attitudes on job satisfaction and turnover intentions.

- Job Satisfaction
- Turnover Intentions

(5) *TQL Implementation.* This section consists of thirteen sub-categories which measure critical components of TQL transformation.

- Leadership Involvement in Quality Performance
- TQL Planning
- External Customer Orientation
- Internal Customer Orientation
- External Supplier Quality
- Internal Supplier Quality
- Process Management
- Barriers to Pride in Workmanship
- Intergroup cooperation
- Barriers Between Departments/Directorates
- Knowledge of TQL
- Employee Participation in TQL Activities
- TQL Training

(6) *TQL Support.* This section consists of five sub-categories which measures factors that may affect implementing and using the TQL approach.

- Commitment to TQL

- Perceived benefits of implementing TQL
- Fear of Implementing TQL
- Leadership Support for TQL
- Anticipated TQL Success

d. Grading

Scoring for the Department of the Navy's TQL Climate Survey is based upon a numeric scale that provides the organization with three types of output. These outputs provide the organization with a layered analysis that lets the organization examine the means of each sub-category, the means of each question, and the means by employee level. The three outputs are the profile chart, the item statistic table and the breakout table.

(1) *Profile Chart*. A profile chart is provided for each major category and it contains the mean answer for each sub-category.

(2) *Item Statistic Table*. The item statistic table provides a summary of the percent responding to each value for each question in the survey. This table also provides the mean and standard deviation for each question.

(3) *Breakout Table*. A breakout table is provided for each major category and it contains the mean and standard deviation, by employee level, for each sub-category.

C. ASSESSMENT GUIDES

This section will present the strengths and limitations of each award as they apply to Marine Corps Logistics Base, Albany.

1. The Malcolm Baldrige National Quality Award and The Presidential Award for Quality

a. Strengths

The main strength of these awards is the fact that they are a nationally recognized award for quality. The recipients of these awards can be assured they are performing well in the quality arena compared to the other applicants. These awards also provide excellent criteria and questions so the organization can examine its TQL process while preparing its application.

b. Limitations

For MCLB, Albany, which is attempting to determine how it is doing in implementing TQL, these two awards have numerous weaknesses. They require the organization to prepare its own application with no guarantee of feedback. The organization must wait approximately five months for the results, and the organization is not provided with any substantial feedback on where its TQL weaknesses are located.

2. The Quality and Productivity Self-Assessment Guide for Defense Organizations

a. Strengths

The main strength of this guide is that it would provide feedback to each individual at MCLB, Albany in regards to their understanding and knowledge of TQL. This guide also directs the individual to references so they can improve their understanding of TQL.

b. Limitations

The main limitation of this self-assessment Guide is the fact that it would not provide MCLB, Albany with any comprehensive micro-level organizational feedback. The guide does provide organizational, feedback but it is limited to one micro-level of results.

3. The Department of the Navy's Total Quality Leadership Climate Survey

a. Strengths

The main strength of this survey is that it would provide MCLB, Albany with detailed feedback on how the organization is doing on implementing TQL. The survey provides feedback by organization level and employee level; it also can provide feedback by department, worker status, age, sex and education level.

b. Limitations

The limitations to MCLB, Albany using this survey is that it requires the honesty of those who complete it and it assumes a reading comprehensive level that is high enough so the respondent can provide accurate answers.

D. CHAPTER CONCLUSIONS

This chapter described four methods that can be used to assess the effectiveness of an organization's TQL program. Assessing the effectiveness of an organizations TQL program is an important way for the organization to ensure it is progressing in the quality arena.

Based on the strengths and limitations of each assessment guide in respect to the needs of MCLB, Albany, the guide that will be used is the Navy's TQL climate survey. This survey provides the most feedback to the organization and is the best method available for MCLB, Albany to assess its implementation of TQL. This survey is shown in its entirety in Appendix A.

Chapter IV will discuss the methodology that was used and provide the data that was collected at the Marine Corps Logistics Base.

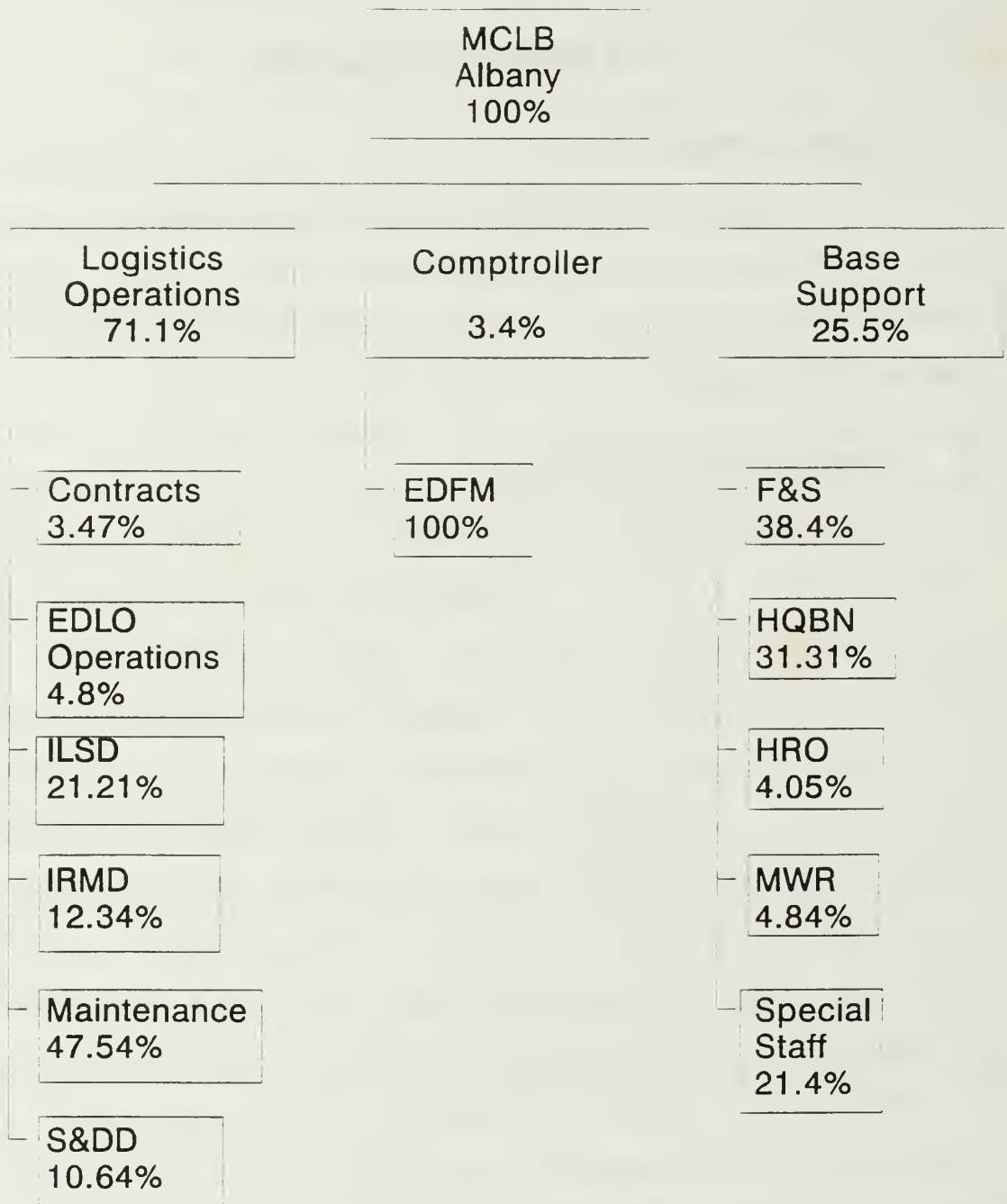
IV METHODOLOGY AND DATA

A. CHAPTER INTRODUCTION

This chapter discusses how the organization was grouped for the administration of the survey, how the total number of surveys were distributed among the groups, and how the survey was administered.

B. ORGANIZATIONAL STRUCTURE

Since the purpose of this survey was to determine how well MCLB, Albany is doing in implementing TQL, the Blount Island and MCLB, Barstow sections were dropped from the organizational chart. This left MCLB, Albany with three major directorates: Logistics Operations, Financial Management and MCLB, Albany (Base Operations). Each directorate contains numerous divisions that were consolidated by functional area into twelve divisions for ease in administering the survey. Figure 4 shows the organizational chart and corresponding percentage of total personnel in each area that was used in determining the number of surveys given to each area. Upon receiving the percentages of personnel, the stratification by directorate, division and employee level began.



Organizational Chart with Employee Percentages
Figure 4

C. SURVEY DISTRIBUTION

1. Directorate Stratification

Based on the percentages in Figure 4, the surveys were distributed as follows:

<u>Directorate</u>	<u>Total Survey</u>
Logistics Operations	142
Comptroller	7
Base Operations	51
<u>Total</u>	<u>200</u>

2. Division Stratification

Each directorates total surveys were then apportioned to each of its divisions based on the percentage of personnel in that division (Figure 4).

<u>Divisions</u>	<u>Total Survey</u>
Logistic Operation	
- contracts	5
- EDLD operations	7
- ILSD	30
- IRMD	19
- MAINT	66
- SRDD	15
Comptroller	
- EDFM	7
Base Operations	
- FRS	20
- HQBN	16
- HRO	2
- MWR	2
- special staff	11
<u>Total</u>	<u>200</u>

3. Employee Level Stratification

Since the survey is designed to provide feedback to the organization based on employee level, the surveys were again divided by employee level based on percentages of top management, middle management, first line supervisor and non-supervisory personnel in each division. This type of sample is referred to as a stratified random sample and it ensures that all groups in the population are equally represented (Weiss, 1991). The percentages by employee level are listed in Appendix B.

4. Percentage Comparison

A complete percentage and personnel breakdown is shown in Appendix B. A comparison of the employee percentages in Appendix B with the distribution of surveys by employee level reveal the following totals.

Top Management

% personnel/% surveys

.006/.01

Middle Management

% personnel/% surveys

.019/.02 surveys

First Line Supervisor

% personnel/ % surveys

.183/.18

Non-Supervisor

% personnel/% surveys

.792/.79

D. SURVEY ADMINISTRATION

The administration of the survey was a two-step process. The first step involved selecting the actual personnel to take

the survey, and the second step was the administration of the survey.

1. Personnel Selection

Since the population was already stratified by employee level, a random number table was used to select the actual participants. Each directorate/division roster, which was computer generated by social security number, was split into four rosters by employee level. Each employee name received a sequential number; for example, the fourteen first-line supervisors in MWR each received a number from one to fourteen. A random number table was then used to select the participants in the survey. Also, a random number table was used to select alternates, by employee level, who could substitute in case a primary participant was unavailable.

2. Administering the Survey

The TQL Climate Survey was administered over a two-day period. The first day was divided into four 90 minute periods with approximately fifty personnel scheduled per period. The second day used two 90 minutes periods in the morning and the afternoon was used to administer the survey to stragglers.

All personnel were given as long as they desired to complete the survey; no survey participant required more than 90 minutes. Before beginning the survey an introduction to the purpose of the survey and instructions on how to complete

the survey were given. Each survey was checked upon completion to ensure the questions were answered.

E. DATA

Each survey was entered into a database using SPSS for windows. The data was then checked for accuracy and the following output was produced.

- the frequency of each answer for each question
- the mean and standard deviation for each question
- the mean for each sub-category of questions
- the mean and standard deviation for each sub-category by employee level

The raw data, presented by question number with the frequency per answer, is shown in Appendix C.

F. CHAPTER CONCLUSIONS

This chapter described how the population was stratified by employee level and how the survey was administered. This chapter also described how the raw data was transformed into meaningful output. Chapter V will present the analysis of the data obtained and presented in this chapter.

V. ANALYSIS

A. CHAPTER INTRODUCTION

This chapter describes and analyzes data obtained from the survey. Section B describes how the data is normally interpreted and how and why this study interprets the data differently. Section C analyzes the data and provides trends for the categories. Appendix D, which accompanies this chapter, provides a profile chart for each of the six survey categories and an item statistical table and breakout table for each of the survey sub-categories.

B. INTERPRETING THE DATA

Normally the ESC interprets survey results. The ESC examines the profile chart, judges the scores, and decides which sub-categories are strengths and which are opportunities for improvement. The ESC then uses the item statistic table and breakout table to examine the sub-categories in more detail. (NPRDC, 1992).

Since this is the first climate survey for MCLB, Albany and this survey is being used as a benchmark for future surveys, all sub-categories will be examined as opportunities for improvement. This examination of the results is logical because the TQL model used by the organization and the TQL process in general is a continuous process. Deming confirms

this when he describes his fifth point for management which states that an organization must "constantly and forever improve the system of production and service". (Deming, 1982).

The next section examines the survey data presented in Appendix D. The mean score for each sub-category is presented and explained in relation to the scale of the survey.¹ The following relationships apply to the survey scores: 1 = Not At All, 2 = A Little Extent, 3 = Some Extent, 4 = Large Extent, 5 = Very Large Extent. The item statistical tables are examined and outliers are identified.² An outlier is defined as a response that is half of a standard deviation less than the mean. Using the central limit theorem, which states that for a sample size greater than 30 the sample is approximately normally distributed, and using the empirical rule for a normally distributed variable, it can be determined that approximately seventy percent of the data is within a half of a standard deviation or greater than the mean score (Weiss, 1991). This procedure is reversed for questions that require a low score as the best answer. After the item statistical table is analyzed, the breakout table is examined to identify

¹. It is important to note that some sub-categories require a low mean score and the meaning of each sub-category should be examined before looking at the mean score.

². When an examining the item statistical table it is important to note that some questions in the sub-category require a low score as the best answer. These questions are presented with a adjusted mean in parenthesis below the actual mean. The adjusted mean is the mean that was used as input into to sub-categories mean.

how employee levels feel about the sub-category.

C. DATA ANALYSIS

1. General Organizational Climate

a. *Organizational Clarity*

Examining the profile chart on page 99 shows a mean score of 3.52 for this sub-category. This score indicates that "to less than a large extent" personnel in the organization feel that the organization has clear, well developed, and fully utilized goals. The item statistic table on page 100 reveals no outliers for this sub-category. The breakout table on page 101 shows a mean score of 3.50 for non-supervisors. This score also indicates "to less than a large extent" are non-supervisors sure about organizational clarity.

b. *Effective Decision Making*

The profile chart on page 99 shows a mean score of 2.99 for this sub-category. This score indicates that "to some extent" personnel in the organization feel decisions are made at the appropriate level and with the appropriate data. Examining the item statistic table on page 102 for outliers reveals that question eight, with a mean score of 2.39, indicates "to less than some extent" are decisions made at the lowest appropriate level. The breakout table on page 103 shows a mean score of 2.90 for non-supervisors. This score indicates that "to less than some extent" the non-supervisor employee level is sure about effective decision making.

c. Interpersonal Conflict

The profile chart on page 99 shows a mean score of 2.72 for this sub-category. This score indicates that "to less than some extent" personnel in the organization perceive or experience interpersonal conflict while at work. The item statistic table on page 104 reveals no outliers for this sub-category. The breakout table on page 105 shows a mean score of 2.75 for non-supervisors. This score indicates that "to less than some extent" do non-supervisors believe that some interpersonal conflict and friction is occurring.

d. Focus Toward High Performance

The profile chart on page 99 shows a mean score of 3.91. This score indicates that "to a large extent" personnel in the organization feel that they are encouraged to pursue challenging goals and to achieve high levels of performance. The item statistic table on page 106 reveals no outliers. The breakout table on page 107 shows that non-supervisors, with a mean score of 3.86, feel that "to less than a large extent" are they encouraged to pursue challenging goals and to achieve high levels of performance.

e. Support For Improvement

Examining the profile chart on page 99 shows a mean score of 2.88. This score indicates that "to less than some extent" personnel believe that there is support for improving work methods and processes. The item statistic

table on page 108 reveals no outliers for this sub-category. The breakout table on page 109 shows a mean score of 2.78 for non-supervisors. This score also indicates that "to less than some extent" do non-supervisors believe there is support for improving work methods and processes.

f. Organizational Vitality

The profile chart on page 99 shows a mean score of 2.77. This score indicates that "to less than some extent" personnel believe that the organization is responsive to changes in the environment and able to keep pace with similar organizations. The item statistical table on page 110 reveals no outliers for this sub-category. The breakout table on page 111 shows a mean score of 2.71 for non-supervisors. This score also indicates that "to less than some extent" do non-supervisors believe that the organization is responsive to changes in the environment and able to keep pace with similar organizations.

g. Trust In Management

The profile chart on page 99 shows a mean score of 3.06. This score indicates that "to some extent" there is trust between employees and management. Examining the item statistical table on page 112 for outliers shows that question 27, with a mean score of 2.45, is an outlier. This score indicates that "to less than some extent" do employees trust management. The breakout table on page 113 shows that non-

supervisors scored this sub-category with a mean score of 2.97. This score indicates that non-supervisors feel that "to some extent" do they believe there is trust between employees and management.

h. General Organization Climate Trends

An analysis of this category reveals the following trends: 1) Non-supervisors consistently scored the sub-categories with the lowest mean score, and 2) The sub-categories that deal with the organization from a philosophy standpoint, i.e., organizational clarity and focus toward high performance, scored higher than the categories that deal with the organization from a implementation standpoint, i.e., effective decision making, interpersonal conflict, support for improvement, organizational vitality, and trust in management.

2. Work Team Functioning

a. Team Cohesion

Examining the profile chart on page 114 shows a mean score of 3.51. This score indicates that "to greater than some extent" team members feel part of their work team and work together to achieve team goals. The item statistical table on page 115 reveals no outliers for this sub-category. The breakout table on page 116 shows that non-supervisors, with a mean score of 3.46, believe that "to greater than some extent" they feel part of their work team.

b. Team Goal Clarity

The profile chart on page 114 shows a mean score of 3.49. This indicates that "to greater than some extent" members have a clear idea of the team's goals. The item statistical table on page 117 reveals no outliers for this sub-category. The breakout table on page 118 shows that first-line supervisors, with a mean score of 3.48, believe that "to greater than some extent" they have an understanding of the team's goals.

c. Team Effectiveness

The profile chart on page 114 shows a mean score of 3.32 for this sub-category. This score indicates that "to greater than some extent" work teams are organized efficiently and team members work together effectively. Examination of the item statistical table on page 119 reveals no outliers for this sub-category. The breakout table on page 120 shows that non-supervisors, with a mean score of 3.25, believe that "to greater than some extent" work teams are organized efficiently.

d. Work Team Functioning Trends

This category reveals that no problems exist while employees are with their work teams. This trend, compared to the previous category which showed a strong philosophy but weak implementation, reveals that the implementation problems appear to occur outside actual work

teams.

3. Job Characteristics

a. *Efficient Job Design*

The profile chart on page 121 shows a mean score of 3.35. This score indicates that "to greater than some extent" employee's jobs are well designed and assistance is readily available. Examination of the item statistical table on page 122 reveals no outliers for this sub-category. The breakout table on page 123 shows that first line supervisors, with a mean score of 3.33, and non-supervisors, with a mean score of 3.37, believe that "to greater than some extent" their jobs are well designed and assistance is available.

b. *Role Clarity*

Examination of the profile chart on page 121 shows a mean score of 4.02. This score indicates that "to a large extent" personnel know exactly what is expected of them. The item statistical table on page 124 reveals no outliers for this sub-category. The breakout table on page 125 shows that all employee levels have mean scores for this sub-category that range from 4.01 to 5.00. This means all employees believe from a large extent to a very large extent that they know exactly what is expected of them.

c. Performance Contingencies

The profile chart on page 121 shows a mean score of 2.80. This score indicates that "to less than some extent" personnel perceive a linkage between good work and supervisor recognition and reward. The item statistical table on page 126 reveals no outliers for this sub-category. The breakout table on page 127 shows that non-supervisors, with a mean score of 2.64, believe that "to less than some extent" is there a linkage between good work and supervisor recognition. In contrast, first line supervisors, with a mean score of 3.26, believe that "to greater than some extent" there is a linkage between good work and supervisor recognition.

d. Information Adequacy

Examination of the profile chart on page 121 shows a mean score of 3.09. This score indicates that "to some extent" information is of sufficient quality, quantity, and timeliness in order to do the job well. The item statistical table on page 128 reveals no outliers for this sub-category. The breakout table on page 129 shows that non-supervisors and first line supervisors, with mean scores of 3.06 and 3.09, respectively, believe that "to some extent" the information is of sufficient quality, quantity, and timely.

e. Situational Constraints

The profile chart on page 121 shows a mean score of 2.44. This indicates that "to less than some extent"

do personnel perceive that organizational and environmental factors limit their ability to perform their jobs to their full potential. The item statistical table on page 130 reveals no outliers for this sub-category. The breakout table on page 131 reveals that all employee levels have mean scores which range from 2.25 to 2.50. This indicates that all employees believe that "to less than some extent" do organizational and environmental factors limit their ability to perform their jobs.

f. Work Pressure

The profile chart on page 121 shows a mean score of 3.11. This score indicates that "to greater than some extent" personnel are given too much work to perform. Examining the item statistical table on page 132 for outliers reveals that question 60, with a mean score of 3.77, indicates that "to a large extent" personnel are required to do more than one thing at a time. The breakout table on page 133 shows that non-supervisors and first line supervisors both have mean scores of 3.11, and, therefore, believe that "to greater than some extent" personnel are given too much work to perform.

g. Understanding Job-Organization Linkage

The profile chart on page 121 shows a mean score of 4.13. This score indicates that "to a large extent" personnel know how their job fits with other jobs in the

organization and how their efforts contribute to achieving the organization's mission. The item statistical table on page 134 reveals no outliers for this sub-category. The breakout table on page 135 shows that all employee levels, with a range of scores from 4.07 to 5.00, believe that from "a large extent" to "a very large extent" the personnel know how their job fits with other jobs in the organization. This score also indicates that from "a large extent" to "a very large extent" the personnel know how their efforts contribute to achieving the organization's mission.

h. Task Significance

The profile chart on page 121 shows a mean score of 4.25. This score indicates that "to greater than a large extent" workers know that their job has a substantial impact on the lives or work of other people, whether in the immediate organization or in the external environment. The item statistical table on page 136 reveals no outliers for this sub-category. The breakout table on page 137 shows that all employee levels, with a range of scores from 4.21 to 5.00, believe that "to greater than a large extent" to "a very large extent" they understand the impact their job has on others.

i. Level of Employee Involvement

The profile chart on page 121 shows a mean score of 3.28. This score indicates that "to greater than some extent" personnel can influence the way they perform

their job. Examining the item statistical table on page 138 reveals no outliers for this sub-category. The breakout table on page 139 shows that non-supervisors, with a mean score of 3.13, believe that "to greater than some extent" they can influence the way they perform their job. The table also reveals that first line supervisors, with a mean score of 3.78, believe that "to a large extent" they can influence the way they perform their job.

j. Job Characteristic Trends

A review of the job characteristics category reveals the following trends: 1) Sub-categories that focus on TQL philosophy, i.e., efficient job design, role clarity, situational constraints, understanding job-organization linkage, and task significance scored higher than the sub-categories that focused on TQL implementation, i.e., performance contingencies, information adequacy, work pressure, and level of employee involvement; 2) The sub-categories focused on philosophy reveal that all employee levels understand the philosophy of the organization; 3) The sub-categories of information adequacy and work pressure reveal that some aspects of implementation have not reached the first line supervisor and non-supervisor levels; and 4) The sub-categories of performance contingencies and level of employee involvement reveal a blockage of the TQL implementation at the first line supervisor level. The

performance contingency sub-category reveals that first line supervisors believe there is a linkage between their work and supervisor recognition, while the non-supervisors, believe to a lesser extent this linkage occurs. The level of employee involvement category reveals that first line supervisors feel they can influence the way they perform their job, but non-supervisors believe that to a lesser extent they can influence the first-line supervisors.

4. Worker Motivation

a. Job Satisfaction

The profile chart on page 140 shows a mean score of 3.95. This score indicates that "almost to a large extent" workers are satisfied with their job. The item statistical table on page 141 reveals no outliers for this sub-category. The breakout table on page 142 reveals that all employee levels, with a range of scores between 3.93 to 4.43, believe that "to a large extent" they are satisfied with their jobs.

b. Turnover Intentions

The profile chart on page 140 shows a mean score of 2.16. This score indicates that "to a little extent" worker's have turnover intentions. The item statistical table on page 143 reveals no outliers for this sub-category. The breakout table on page 144 reveals that all employee levels have mean scores which range from 1.00 to 2.21. This means

that all levels either do not have turnover intention or have them only to "a little extent."

c. *Worker Motivation Trends*

This category reveals that no problems exist with job satisfaction or with worker turnover. This trend compared with the other categories that showed a strong understanding and acceptance of TQL philosophy reveals that implementation can be successful if it reaches all employee levels.

5. TQL Implementation

a. *Leadership Involvement in Quality Performance*

The profile chart on page 145 shows a mean score of 3.22. This score indicates that "to greater than some extent" senior leaders are committed to and active in improving quality. The item statistical table on page 146 reveals no outliers for this sub-category. The breakout table on page 147 indicates that all employee levels scores, with a range from 3.13 to 4.83, indicate all levels believe that "to greater than some extent" senior leaders are committed to and active in improving quality.

b. *TQL Planning*

The profile chart on page 145 shows a mean score of 3.21. This score indicates that "to greater than some extent" the organization approaches TQL within a strategic framework focused on long-term quality improvement.

The item statistical table on page 148 reveals no outliers for this sub-category. The breakout table on page 149 reveals that non-supervisors, with a mean score of 3.15, believe that "to greater than some extent" the organization approaches TQL within a strategic framework.

c. External Customer Orientation

Examination of the profile chart on page 145 shows a mean score of 3.57. This score indicates that "approaching to a large extent" the organization emphasizes external customer needs in its activities. Examining the item statistical table on page 150 for outliers shows that question 86, with a mean score of 2.91, indicates that "to less than some extent" does management try to plan ahead for changes in external customer requirements. The breakout table on page 151 indicates that non-supervisors, with a mean score of 3.47, believe that "to greater than some extent" the organization emphasizes external customer needs.

d. Internal Customer Orientation

The profile chart on page 145 shows a mean score of 3.74. This score indicates that "approaching to a large extent" the organization emphasizes internal customer needs, customers are known, and their requirements are understood. The item statistical table on page 152 reveals no outliers for this sub-category. The breakout table on page 153 indicates that non-supervisors, with a mean score of 3.67,

believe that "approaching to a large extent" the organization emphasizes internal customer needs.

e. External Supplier Quality

The profile chart on page 145 shows a mean score of 2.31. This score indicates that employees think "to less than some extent" management monitors external supplier quality and defines and communicates supplier requirements. Examining the item statistical table on page 154 for outliers reveals that question 95, with a mean score of 1.35, indicates that "approaching to not at all" is management working toward fewer external suppliers. The breakout table on page 155 indicates that first line supervisors and non-supervisors, with mean scores of 2.55 and 2.22, respectively, believe that "to less than some extent" does management monitor external supplier quality, while top and middle management, with mean scores of 3.13 and 3.25, respectively, believe that "to greater than some extent" does management monitor external supplier quality.

f. Internal Supplier Orientation

The profile chart on page 145 shows a mean score of 2.58. This score indicates employees think that "to less than some extent" internal supplier quality is monitored, defined and requirements are communicated. The item statistical table on page 156 reveals no outliers for this sub-category. The breakout table on page 157 reveals that

non-supervisors, with a mean score of 2.47, believe that "to less than some extent" internal supplier quality is monitored.

g. Process Management

Examination of the profile chart on page 158 shows a mean score of 2.35. This score indicates that "to a little extent" employees use process improvement methods. The item statistical table on page 159 reveals no outliers for this sub-category. The breakout table on page 160 indicates that non-supervisors, with a mean score of 2.22, believe that "to a little extent" they use process improvement methods.

h. Barriers to Pride In Workmanship

The profile chart on page 158 shows a mean score of 2.45. This score indicates that "to less than some extent" there are barriers to taking pride in workmanship. Examining the item statistical table on page 161 for outliers reveals that question 104, with a mean score of 3.05, indicates that "to some extent" the performance appraisal system creates barriers to taking pride in workmanship. The breakout table on page 162 indicates that all the employee levels, with a range of scores from 2.30 to 2.87, believe that "to less than some extent" there are barriers to taking pride in workmanship.

i. Intergroup Cooperation

Examining the profile chart on page 158 shows a mean score of 3.16. This score indicates that "to greater

than some extent" different teams within a department understand each others' goals, objectives and cooperate to achieve these goals. The item statistical table on page 163 reveals no outliers for this sub-category. The breakout table on page 164 indicates that all employee levels, with a range of scores from 3.12 to 3.75, believe that "to greater than some extent" there is intergroup cooperation.

j. Barriers Between Departments/Directorates

The profile chart on page 158 shows a mean score of 3.03. This score indicates that "to some extent" different departments work well together and help each other achieve one another's goals and objectives. The item statistical table on page 165 reveals no outliers for this sub-category. The breakout table on page 166 indicates that non-supervisors and first line supervisors, with mean scores of 3.01 and 3.07, respectively, believe that "to some extent" different departments work well together.

k. Knowledge of TQL

The profile chart on page 158 shows a mean score of 3.79. This score indicates that "approaching a large extent" employees feel they understand and can apply TQL concepts and techniques. Examining the item statistical table on page 167 reveals no outliers for this sub-category. The breakout table on page 168 indicates that non-supervisors, with a mean score of 3.71, believe that "approaching to a

large extent" they understand TQL, while first line supervisors, with a mean score of 3.99, believe that "to a large extent" they understand TQL.

1. TQL Implementation Trends

A review of the TQL implementation category reveals the following trends: 1) The sub-categories dealing with TQL at the macro or organizational level, i.e., leadership involvement in quality performance, TQL planning, external customer orientation, internal customer orientation, barriers to pride in workmanship, intergroup cooperation, barriers between departments/directorates, and knowledge of TQL show that there is no problem with TQL at the organizational level, and 2) The sub-categories that have a direct impact on the micro or process level, i.e., external supplier quality, internal supplier quality, and process measurement show that there is an implementation problem at the line worker level of the organization. This trend relates to the previous categories that showed a strong TQL philosophy, but a weak implementation at the lower levels of the organization.

6. TQL Support

a. Commitment to TQL

The profile chart on page 173 shows a mean score of 3.36. This score indicates that "to greater than some extent" different levels of the organization want to

implement TQL. The item statistical table on page 174 reveals no outliers for this sub-category. The breakout table on page 175 indicates that non-supervisors, with a mean score of 3.28, believe that "to greater than some extent" the different levels of the organization want to implement TQL.

b. Perceived Benefits of Implementing TQL

Examination of the profile chart on page 173 shows a mean score of 3.89. The score indicates "approaching to a large extent" employees understand different types of benefits the organization can achieve by using TQL. The item statistical table on page 176 reveals no outliers for this sub-category. The breakout table on page 177 shows that first line supervisors and non-supervisors, with mean scores of 3.85 and 3.87, respectively, believe that "approaching to a large extent" employees understand the benefits of implementing TQL.

c. Fear of Implementing TQL

The profile chart on page 173 shows a mean score of 1.52. This score indicates that "approaching to not at all" do employees fear negative consequences associated with TQL. The item statistical table on page 178 reveals no outliers for this sub-category. The breakout table on page 179 reveals that first line supervisors, with a mean score of 1.71, fear TQL "to less than a little extent."

d. Leadership Support for TQL

The profile chart on page 173 shows a mean score 2.59. This score indicates that "to less than some extent" leadership provides adequate support in time, policies, and priorities for TQL implementation activities. Examining the item statistical table on page 180 for outliers reveals that question 148, with a mean score of 1.74, indicates that "to less than a little extent" are efforts toward implementing TQL considered during performance appraisals. The breakout table on page 181 reveals that non-supervisors, with a mean score of 2.51, and first line supervisors, with a mean score of 2.73, believe that "to less than some extent" leadership provides adequate support for TQL.

e. Anticipated TQL Success

Examination of the profile chart on page 173 shows a mean score of 3.41. This score indicates that "to greater than some extent" individuals believe TQL will be successful in the organization. The item statistical table on page 182 reveals no outliers for this sub-category. The breakout table on page 183 reveals that first line supervisors and non-supervisors, with mean scores of 3.37 and 3.40, respectively, believe that "to greater than some extent" TQL will be successful.

f. TQL Support Trends

The analysis of this category reveals that, like the category on TQL implementation, no problems exist in the sub-categories that deal with the organization as a whole, i.e., commitment to TQL, perceived benefits of implementing TQL, fear of implementing TQL, and anticipated TQL success. However, the same trend that was noticed in the TQL implementation category also exists in this category. The sub-category on leadership support for TQL reveals that, like the category on TQL implementation, a problem exists with implementation at the line worker level.

D. CHAPTER CONCLUSIONS

This chapter determined that each category of a benchmark survey should be analyzed as an opportunity for improvement. This follows the characterization of TQL as a continuous process that is always searching for ways to improve. The analysis of data from the survey revealed there is a strong TQL philosophy in the organization but the implementation of TQL has not yet reached the lower levels of the organization. The data analysis also revealed that the organization is doing fine with TQL at the organizational level but it is showing weaknesses at the line worker level. Finally, the data revealed that a blockage of the implementation process is occurring at the first line supervisor level.

VI CONCLUSIONS AND RECOMMENDATIONS

A. OVERVIEW

A review of the background of TQL at Marine Corps Logistics Base, Albany revealed that the organization has implemented a TQL structure and philosophy that overlays their existing organizational structure. The organization has identified and is using a TQL model that focuses management philosophy on continuous improvement. They have also identified numerous tools and techniques they can use in their TQL process. The establishment of the TQL philosophy and strategic framework for implementation are critical to the TQL effort. Many TQL efforts are thwarted by ineffective execution of the TQL philosophy (McCormack, 1992).

The TQL process is a continuous process that must never end if it is to be successful. The Plan-Do-Check-Act (PDCA) cycle represents work on processes rather than specific tasks. This cycle relates to the implementation of TQL because TQL implementation is a continual process. Since a process can never be perfected but only improved, it is necessary for organizations to assess their TQL process.

A review of quality assessment guides revealed that each guide possesses its own strengths and limitations. Each organization that is attempting to evaluate its TQL effort

needs to weigh these strengths and limitations against its assessment needs. Since no method stands alone as an assessment model, it should not be overlooked that some organizations can use parts of each guide to satisfy their assessment effort.

B. CONCLUSIONS IN RELATIONSHIP TO RESEARCH QUESTIONS

The primary research question is "To what extent was Total Quality leadership successfully implemented at Marine Corps Logistics Base, Albany, Georgia?". The answer to this question can be found in Chapter V. This chapter identifies the trends from the survey which show that the organization has a well established TQL philosophy, but the implementation has not yet reached the lower levels of the organization. The data also reveal that there is a blockage at the first line supervisor level and the implementation has not yet reached the line worker level of the organization.

A subsidiary question is "What process can be used to judge the effectiveness of Total Quality Leadership at a military organization?" The answer to this question can be found in Chapter III, Section D. This section identifies the Department of the Navy's TQL Climate Survey as the best method to evaluate Marine Corps Logistics Base, Albany. Based on the needs of the organization, the Department of the Navy's TQL climate survey was chosen because it provided the most comprehensive feedback to the organization.

Another subsidiary research question is "How far along is Marine Corps Logistics Base, Albany in implementing TQL?". Chapter III points out that TQL implementation is a continual process and currently Marine Corps Logistics Base, Albany is in the PDCA cycle. The data from Chapter V reveals that they have established a strong TQL philosophy that permeates the organization but they are still attempting to execute the philosophy at the lower levels of the organization.

The third subsidiary research question is "What barriers or obstacles exist, if any, to implementing TQL at Marine Corps Logistics Base, Albany and how might they be overcome?" The data in Chapter V revealed that there is a blockage at the first-line supervisor level in the area of work and supervisor recognition and in the area of influencing the way a job is performed. This relates back to the primary research question which revealed that TQL has not yet reached the lower levels of the organization.

The final subsidiary question is "Can a process be developed that will provide other military organizations with a method to evaluate the effectiveness of their TQL program?" Chapter IV presents the assessment guides available, and while no specific checklist is developed, a comparison of an organization's assessment needs to the strengths and limitations of the guides does provide a starting point in the assessment process.

C. GENERAL RECOMMENDATIONS

1. The ESC should review the analysis of the data. The review should focus on ways to improve in each sub-category so the TQL implementation process can be continually improved and eventually reach the lower levels of the organization.

2. The ESC should place a priority on removing the blockage to implementation that exists at the first line supervisor level and on forcing TQL implementation into the lower levels of the organization. They should also not forget that some improvements will require a long term focus and these should not be forsaken for short term results.

3. The TQL office should examine the assessment guides evaluated by this thesis and use portions of the guides to continually do self tests of their organization. For example, the Quality and Productivity Self-Assessment Guide for Defense Organizations can be used so each individual can enhance their TQL knowledge.

4. The organization should conduct another TQL assessment in the future so they can determine, by comparison to this survey, if their solutions for improvement were effective, and if not, so they can implement new solutions.

APPENDIX A

Organizational Assessment Survey

This survey is designed to obtain your thoughts about your job and organization. Your honest opinions are important and sincerely welcome. Please read each question carefully before responding. Most can be answered by simply circling the number that most nearly represents your opinion.

EXAMPLE QUESTION:

To What Extent...	Not At All		Some Extent		Very Large Extent	Don't Know
1. Does this organization follow its vision statement?	1	2	3	4	5	0

Note that a response category "Don't Know" is provided because some information is not available to all employees. Please use the "Don't Know" category as seldom as possible.

Your individual answers to questions will not be given to anyone in your organization. Please do not sign your name to this survey. The information you provide will be combined with the information of other employees to evaluate general attitudes and opinions of employees in your organization. The survey includes several questions describing yourself. The answers to these questions will be used for research purposes, and will not be used to identify you or reveal your individual responses.

Your assistance in this effort is appreciated.

Privacy Act Statement

Public Law 93-579, the Privacy Act of 1974 requires that you be informed of the purposes and uses to be made of the survey. Authority to collect this information is granted in Title 5 of the United States Code. Providing this information is voluntary. The information will be used for statistical purposes only. In no case will the information be used for making decisions affecting specific individuals.

Navy Personnel Research and Development Center
San Diego, California

Appendix 1: Definitions of Terms

Organization	The organization for which you work.
Department/Directorate	A section of the organization that fulfills a major function (i.e., maintenance engineering).
Executive Steering Committee	The highest level quality improvement team in a command.
External customer	An individual or group outside the producing organization who receives or uses the output of a process (product or service).
External supplier	An individual or group <i>outside</i> your organization (vendor) that provides materials, products, information or services to an individual or group within your organization.
Supervisor	The person to whom you directly report (the person who formally evaluates your performance).
Internal supplier	An individual or group <i>within</i> your organization (department/division/office) that provides input to another individual or group within your organization.
Internal customer	An individual or group <i>inside</i> the producing organization who receives or uses the output of a process (product or service).
Management	Any/all levels of supervision in the organization.
Process Action Team	A team that is chartered by a Quality Management Board (QMB) or a functional line manager to assist in achieving process stability for a particular measurement being used by the QMB.
Quality Management Board	A team composed of all the managers who are jointly responsible for a process, system, product, or service.
Senior leaders	The highest-ranking official of the organization and those reporting directly to that official.
TQL	Total Quality Leadership. The application of quantitative methods and people, to assess and improve materials and services supplied to the organization; all significant processes in the organization; and meeting the needs of the end user, now and in the future..
Work team	The people that work with you most frequently (on a day-to-day basis).

To What Extent...	Not At All	Some Extent	Very Large Extent	Don't Know		
1. Are the organization's goals clear to you?	1	2	3	4	5	0
2. Do you think organizational goals are used to make day-to-day work decisions?	1	2	3	4	5	0
3. Do you think there are thorough plans for achieving organizational goals?	1	2	3	4	5	0
4. Do you think there is formal planning for achievement of organizational goals?	1	2	3	4	5	0
5. Does the current reporting structure (i.e., chain of command) provide you with the information you need to make good decisions?	1	2	3	4	5	0
6. Do information systems provide you with useful information that you need for making decisions?	1	2	3	4	5	0
7. Are decisions in this organization based on adequate information?	1	2	3	4	5	0
8. Are decisions made at the lowest appropriate level?	1	2	3	4	5	0
9. Is there friction between people in your department and those in other departments?	1	2	3	4	5	0
10. Is there conflict between supervisors and workers?	1	2	3	4	5	0
11. Is there conflict among your coworkers?	1	2	3	4	5	0
12. Is there friction between people in your work team and those in other work teams?	1	2	3	4	5	0
13. Are you expected to meet demands for high levels of performance?	1	2	3	4	5	0
14. Are the goals that you are given challenging?	1	2	3	4	5	0
15. Are you encouraged to give your best work effort?	1	2	3	4	5	0
16. Are high standards of efficiency emphasized?	1	2	3	4	5	0
17. Does your supervisor encourage ideas and suggestions about better ways to do the work?	1	2	3	4	5	0
18. Does management follow up on suggestions for improvement?	1	2	3	4	5	0
19. Does management reward employees who make improvements in the way the work is done?	1	2	3	4	5	0
20. Does management encourage creative solutions to work problems?	1	2	3	4	5	0
21. Does management take action quickly enough when new opportunities could help the organization?	1	2	3	4	5	0
22. Is this organization a leader when compared with similar organizations?	1	2	3	4	5	0
23. Does this organization adapt well to changes in funding levels?	1	2	3	4	5	0
24. Are management decisions innovative?	1	2	3	4	5	0

To What Extent...

25. Does management follow through on its commitments?	1	2	3	4	5	0
26. Do employees trust management?	1	2	3	4	5	0
27. Do you trust your supervisor?	1	2	3	4	5	0

The next section of this survey asks questions about your work team.

To What Extent...	Not At All		Some Extent		Very Large Extent
29. Are you satisfied with the effort of others on your work team?	1	2	3	4	5
30. Do you feel you are really part of your work team?	1	2	3	4	5
31. Are there feelings among members of your work team which tend to pull the team apart?	1	2	3	4	5
32. Do you look forward to being with the members of your work team?	1	2	3	4	5
33. Does your work team know exactly what it has to do?	1	2	3	4	5
34. Does each member of your work team have a clear idea of the team's goals?	1	2	3	4	5
35. Does your supervisor clearly communicate team goals and priorities to team members?	1	2	3	4	5
36. Does your work team have efficient work methods?	1	2	3	4	5
37. Is the work team organized in the best way to accomplish its duties?	1	2	3	4	5
38. Is the workload distributed effectively among the members of your work team?	1	2	3	4	5
39. Does your work team work together effectively?	1	2	3	4	5
40. Do you have the materials and supplies you need to do your work?	1	2	3	4	5
41. Are written procedures available to help get the job done?	1	2	3	4	5
42. Is someone readily available to help you when a problem occurs?	1	2	3	4	5
43. Do you know what you have to do on your job?	1	2	3	4	5
44. Do you know exactly what is expected of you on your job?	1	2	3	4	5
45. Are the tasks on your job clearly defined?	1	2	3	4	5
46. Do you understand what your supervisor expects of you?	1	2	3	4	5
47. Are people rewarded for high quality work?	1	2	3	4	5
48. Are people paid fairly for the work they do?	1	2	3	4	5

44.	Do you have enough information from management with which to do a good job?	1	2	3	4	5
50.	Is there quick recognition for outstanding performance?	1	2	3	4	5
51.	Does the quality of information you receive help you do your job well?	1	2	3	4	5
52.	Do you receive information at the right time to help you do your job well?	1	2	3	4	5
53.	Do you receive enough information to do your job well?	1	2	3	4	5
54.	Do you have to depend on co-workers who are not well trained?	1	2	3	4	5
55.	Do you have to follow policies and procedures that are wrong?	1	2	3	4	5
56.	Do your work surroundings get in the way of doing your job?	1	2	3	4	5
57.	Do you have problems getting the information you need to do your job well?	1	2	3	4	5
58.	Are you given enough time to complete your work?	1	2	3	4	5
59.	Do you have too much work for one person to do?	1	2	3	4	5
60.	Are you required to do more than one thing at a time?	1	2	3	4	5
61.	Are you given extra work without regard to the work you already have to do?	1	2	3	4	5
62.	Do you understand how your job fits in with other jobs in the organization?	1	2	3	4	5
63.	Do you understand how your work contributes to the organization's mission?	1	2	3	4	5
64.	Are the results of your work likely to affect the lives of other people?	1	2	3	4	5
65.	Are a lot of other people affected by how well your work gets done?	1	2	3	4	5
66.	Do you feel that your job is significant?	1	2	3	4	5
67.	Can you influence the decisions that affect your work team?	1	2	3	4	5
68.	Can you influence your supervisor's decisions?	1	2	3	4	5
69.	Does your supervisor accept your ideas and suggestions?	1	2	3	4	5
70.	Are you free to decide how to do your job?	1	2	3	4	5

The items in the next section are concerned with some of your attitudes toward your job.

	Strongly Disagree	Neither Agree nor Disagree	Strongly Agree
71. I am satisfied with my job	1	2 3	4 5
72. In general, I don't like my job	1	2 3	4 5
73. All in all, I like working here	1	2 3	4 5
74. I plan on actively looking for a new job in the next year	1	2 3	4 5
75. I often think about quitting.	1	2 3	4 5
76. I will probably look for a new job in the next year.	1	2 3	4 5

This next section contains items concerned with the implementation of TQL in your organization.

To What Extent...	Not At All	Some Extent	Very Large Extent	Don't Know
77. Are the senior leaders of this organization committed to providing top quality products or services?	1	2 3	4 5	0
78. Do our senior leaders regularly review the quality of the organization's work?	1	2 3	4 5	0
79. Do our senior leaders in this organization set examples of quality performance?	1	2 3	4 5	0
80. Does this organization have a long-term quality focus?	1	2 3	4 5	0
81. Is quality improvement seen as just another organizational program?	1	2 3	4 5	0
82. Is TQL incorporated into the overall organizational strategy?	1	2 3	4 5	0
83. Are TQL activities consistent with the long term goals of the organization?	1	2 3	4 5	0
84. Do you understand the needs of this organization's external customers?	1	2 3	4 5	0
85. Does the organization focus on meeting the needs of external customers?	1	2 3	4 5	0
86. Does management try to plan ahead for changes in external customer requirements?	1	2 3	4 5	0
87. Has management clearly identified its external customers to you?	1	2 3	4 5	0
88. Do you understand the needs of your internal customers?	1	2 3	4 5	0
89. Do you believe you are meeting the needs of your internal customers?	1	2 3	4 5	0
90. Do you plan ahead for changes in internal customer requirements?	1	2 3	4 5	0

Section		Rating				
		1	2	3	4	5
91.	Do you know what your customers are?	1	2	3	4	5
92.	Does management actively monitor the quality of external suppliers' products or services?	1	2	3	4	5
93.	Has management defined the quality requirements that external suppliers must meet?	1	2	3	4	5
94.	Does management communicate the organization's quality requirements to external suppliers?	1	2	3	4	5
95.	Is management working toward fewer external suppliers?	1	2	3	4	5
96.	Is the quality of internal suppliers' products or services monitored?	1	2	3	4	5
97.	Have quality requirements been defined for your internal suppliers?	1	2	3	4	5
98.	Have quality requirements been communicated to your internal suppliers?	1	2	3	4	5
99.	Do you believe your quality requirements are being met by internal suppliers?	1	2	3	4	5
100.	Do you use any of the seven basic graphical tools to help improve processes (run chart, histogram, pareto chart, flow diagram, cause and effect diagram, scatter diagram, control chart)?	1	2	3	4	5
101.	Do you collect process data?	1	2	3	4	5
102.	Have you developed process measures?	1	2	3	4	5
103.	Does your work team apply process improvement methods to critical processes?	1	2	3	4	5
104.	Does our performance appraisal system create barriers to taking pride in workmanship?	1	2	3	4	5
105.	Can you tell when you have done a good job?	1	2	3	4	5
106.	Are you forced to use equipment or materials that will produce poor-quality results?	1	2	3	4	5
107.	Are there barriers here that prevent you from taking pride in your work?	1	2	3	4	5
108.	Do work teams in your department/directorate understand each other goals and objectives?	1	2	3	4	5
109.	Do work teams in your department/directorate work together to achieve one another's goals and objectives?	1	2	3	4	5
110.	Do work teams in your department/directorate understand one another's problems and difficulties?	1	2	3	4	5
111.	Do work teams in your department/directorate get along with one another?	1	2	3	4	5
112.	Do people in your department/directorate understand the goals and objectives of other departments/directorates?	1	2	3	4	5
113.	Do people in your department/directorate work with people in other departments/directorates to achieve one another's goals and objectives?	1	2	3	4	5
114.	Do people in your department/directorate understand the problems and difficulties of people in other departments/directorates?	1	2	3	4	5

Team at Extent

115. Are there good relationships between different departments/directorates? 1 2 3 4 5 6
116. Do you understand basic TQL concepts? 1 2 3 4 5 6
117. Do you understand TQL well enough to use it in your job? 1 2 3 4 5 6
118. Do you understand TQL well enough to improve your work processes? 1 2 3 4 5 6

The following questions ask about your experience in specific TQL roles. Please indicate if you have served in the following TQL related roles during the last year in this organization. Choose '1' for No, '2' for yes, and '0' if do not have enough information to answer the question.

- | | Yes | No | Don't Know |
|---|-----|----|------------|
| 119. Have you served as a member of a Process Action Team? | 1 | 2 | 0 |
| 120. Have you served as a member of a Quality Management Board? | 1 | 2 | 0 |
| 121. Have you served as a member of the Executive Steering Committee? | 1 | 2 | 0 |
| 122. Have you served as a TQL team advisor/facilitator? | 1 | 2 | 0 |

The following questions ask about your exposure to DON's TQL training courses. Please circle the number that best describes how helpful you found the training.

- | | Haven't Attended | Not Helpful | Slightly Helpful | Moderately Helpful | Very Helpful | Extremely Helpful |
|---|------------------|-----------------|------------------|--------------------|--------------|-------------------|
| 123. TQL Orientation Briefing by Senior Leader | 0 | 1 | 2 | 3 | 4 | 5 |
| 124. Introduction to TQL (1-Day) | 0 | 1 | 2 | 3 | 4 | 5 |
| 125. Fundamentals of TQL (3-Day) | 0 | 1 | 2 | 3 | 4 | 5 |
| 126. Implementing TQL | 0 | 1 | 2 | 3 | 4 | 5 |
| 127. Basic Quantitative Methods and Tools for Process Improvement | 0 | 1 | 2 | 3 | 4 | 5 |
| 128. Team Skills and Concepts for TQL | 0 | 1 | 2 | 3 | 4 | 5 |
| 129. Methods for Managing Quality | 0 | 1 | 2 | 3 | 4 | 5 |
| 130. Strategic Planning for Quality | 0 | 1 | 2 | 3 | 4 | 5 |
| 131. Advanced Quantitative Methods and Tools for Process Improvement | 0 | 1 | 2 | 3 | 4 | 5 |
| | None | Less than 1 day | 1-3 days | 3-7 days | 1-2 weeks | More than 2 weeks |
| 132. How much TQL training have you received in classes not listed above? | 0 | 1 | 2 | 3 | 4 | 5 |

The next set of items are concerned with factors that may affect implementing and using the TQL approach

To What Extent	Not At All	2	3	Some Extent	4	5	Very Large Extent	Don't Know
133. Does military management in this organization want to implement TQL?	1	2	3	4	5	0		
134. Does civilian management in this organization want to implement TQL?.....	1	2	3	4	5	0		
135. Does your supervisor want to implement TQL?	1	2	3	4	5	0		
136. Do your co-workers want to implement TQL?	1	2	3	4	5	0		
137. Do you want to implement TQL?	1	2	3	4	5	0		
138. Can TQL increase productivity?.....	1	2	3	4	5	0		
139. Can TQL improve quality?	1	2	3	4	5	0		
140. Can TQL improve technical capabilities?	1	2	3	4	5	0		
141. Can TQL improve the organization's reputation?	1	2	3	4	5	0		
142. Do you fear the changes that may result from TQL implementation?	1	2	3	4	5	0		
143. Do you fear criticism from others in the organization if you use TQL methods?	1	2	3	4	5	0		
144. Do you fear that applying TQL principles will lead you to make incorrect decisions?	1	2	3	4	5	0		
145. Do you fear that you may anger others if you use TQL methods?.....	1	2	3	4	5	0		
146. Does your supervisor practice TQL methods?	1	2	3	4	5	0		
147. Does your supervisor assist you in performing quality improvement activities?	1	2	3	4	5	0		
148. Are your efforts toward implementing TQL considered during performance appraisal?	1	2	3	4	5	0		
149. Do the organization's policies and procedures fit with the objectives of TQL?.....	1	2	3	4	5	0		
150. Does your supervisor give you enough time to perform quality improvement activities?	1	2	3	4	5	0		
151. Do you think TQL will work in this organization?	1	2	3	4	5	0		
152. Does this organization need to improve quality?	1	2	3	4	5	0		
153. Is the TQL philosophy consistent with what people believe in this organization?	1	2	3	4	5	0		

This last section of the questionnaire asks questions that are needed to help us with the statistical analysis of the data. This information will allow for comparison with other employee groups. Please circle the number of the correct response. No attempt will be made to identify your individual responses in this or any other part of the survey.

154. What is your sex?

1. Male
2. Female

155. What is your highest education level?

1. Less than 9th grade level
2. Some high school
3. High school diploma or GED
4. Vocational/technical training
5. Some college
6. Graduated from college (Bachelor's Degree)
7. Some graduate school
8. Graduate or professional degree (e.g. MBA/MA/PhD)

156. What is your present age?

- | | | |
|-------------|----------|------------|
| 1. Under 21 | 4. 31-35 | 7. 46-50 |
| 2. 21-25 | 5. 36-40 | 8. 51-5 |
| 3. 26-30 | 6. 41-45 | 9. Over 55 |

157. What is your current level of responsibility?

1. Non-supervisor
2. First-line supervisor
3. Mid-level supervisor/manager
4. Top management (CO, and managers reporting to CO)

158. What is your employment status?

1. Civilian: Career/career conditional
2. Civilian: Temporary
3. Civilian: Contractor
4. Military: Active duty
5. Military: Reserve
6. Other

APPENDIX B

Breakdown of Personnel at MCLB, Albany by Percent/Number

	Non- <u>Supervisor</u>	First Line <u>Supervisor</u>
Logistics Operations	.797/1976	.180/447
Contracts	.662/57	.279/24
EDLO Operations	.740/88	.226/27
ILSD	.781/411	.196/103
IRMD	.683/209	.281/86
MAINT	.843/994	.138/163
S&DD	.810/214	.167/44
Comptroller		
EDFM	.739/88	.227/27
Base Operations	.787/699	.184/163
F&S	.807/275	.182/62
HQBN	.827/230	.144/40
HRO	.750/27	.222/8
MWR	.605/26	.326/14
Special Staff	.742/141	.205/39
Total	.792/2763	.183/637

	Middle	Top	
	<u>Management</u>	<u>Management</u>	<u>Total</u>
Logistics Operations	.019/49	.004/11	.711/2480
Contracts	.047/4	.012/1	.034/86
EDLO Operations	.017/2	.017/2	.048/119
ILSD	.019/10	.004/2	.212/526
IRMD	.026/8	.010/3	.123/306
MAINT	.017/20	.002/2	.475/1179
S&DD	.019/5	.004/1	.106/264
Comptroller			
EDFM	.017/2	.017/2	.034/119
Base Operations	.020/18	.009/8	.255/888
F&S	.008/3	.003/1	.384/341
HQBN	.022/6	.007/2	.313/278
HRO	.00/0	.028/1	.041/36
MWR	.069/3	.00/0	.048/43
Special Staff	.032/6	.021/4	.214/190
Total	.019/69	.006/21	1.0/3487

APPENDIX C

RAW DATA BY QUESTION AND FREQUENCY ANSWERED

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
1	9	15	57	47	71	1
2	5	19	81	51	39	5
3	12	18	64	55	44	7
4	6	18	57	66	45	8
5	19	29	54	65	45	8
6	11	21	74	64	26	4
7	13	29	65	53	24	16
8	44	41	64	29	9	13
9	21	48	60	24	43	4
10	27	47	60	30	34	2
11	50	61	47	20	20	2
12	40	64	51	22	15	8
13	4	6	35	52	102	1
14	17	15	53	56	58	1
15	9	15	40	32	102	2
16	10	27	31	49	83	0
18	22	47	77	37	16	6
19	36	55	56	24	19	10

1 = NOT AT ALL

3 = SOME EXTENT

5 = VERY LARGE EXTENT

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
20	21	46	73	32	23	5
21	30	46	72	33	10	9
22	12	21	68	37	39	23
23	12	22	50	56	24	36
24	13	31	99	32	9	16
25	15	29	54	52	47	3
26	17	41	68	47	23	4
27	39	54	56	35	7	9
28	28	25	46	38	61	2

<u>Question</u>	<u>Frequency Answered</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
29	11	20	65	55	49
30	10	25	49	46	70
31	51	41	58	30	20
32	10	33	63	50	44
33	8	25	47	57	63
34	10	30	50	54	56
35	21	38	63	41	37

1 = NOT AT ALL

3 = SOME EXTENT

5 = VERY LARGE EXTENT

<u>Question</u>	<u>Frequency Answered</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
36	15	26	67	60	32
37	16	38	68	54	24
38	29	30	58	44	39
39	7	19	69	56	49
40	15	35	54	58	38
41	25	33	59	41	42
42	15	23	59	56	47
43	4	5	24	59	108
44	6	14	29	50	101
45	12	19	48	56	65
46	7	17	40	52	84
47	33	45	64	36	22
48	43	40	53	36	28
49	34	35	76	37	18
50	40	50	63	27	20
51	11	25	87	52	25
52	17	47	94	32	10
53	10	40	82	50	18
54	48	58	42	36	16
55	50	59	61	20	10
56	78	45	40	21	16

1 = NOT AT ALL

3 = SOME EXTENT

5 = VERY LARGE EXTENT

<u>Question</u>	<u>Frequency Answered</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
57	39	63	60	28	10
58	17	28	69	52	34
59	55	35	53	31	26
60	13	16	49	47	75
61	24	32	53	45	46
62	9	9	36	55	91
63	7	9	30	42	112
64	14	7	26	38	115
65	5	8	34	43	110
66	5	7	23	42	123
67	13	12	71	59	45
68	28	43	72	39	18
69	14	35	74	49	28
70	17	21	58	59	45

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<u>Question</u>	<u>Frequency Answered</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
71	11	23	37	60	69
72	106	48	22	14	10
73	12	14	31	58	85
74	100	21	29	16	34
75	125	15	27	19	14
76	106	18	29	12	35

1 = STRONGLY DISAGREE 3 = NEITHER AGREE OR DISAGREE

5 = STRONGLY AGREE

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
77	8	12	42	55	68	15
78	7	20	44	50	43	36
79	19	18	56	53	37	17
80	9	7	41	43	69	31
81	27	30	58	37	30	18
82	6	28	50	53	45	18
83	7	17	52	49	44	31
84	8	8	34	50	91	9
85	5	7	36	60	85	7
86	11	17	51	50	37	34
87	21	17	47	41	68	6

1 = NOT AT ALL 3 = SOME EXTENT 5 = VERY LARGE EXTENT

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
88	9	10	39	49	86	7
89	5	6	39	61	77	12
90	8	16	58	62	44	12
91	10	8	36	41	95	10
92	10	15	54	50	32	39
93	14	11	57	50	24	44
94	10	13	53	43	24	57
95	27	24	29	17	8	95
96	4	18	65	39	28	46
97	6	19	55	47	22	51
98	7	15	61	41	21	55
99	15	20	68	49	16	32
100	69	29	35	23	28	16
101	68	23	35	21	34	19

1 = NOT AT ALL

3 = SOME EXTENT

5 = VERY LARGE EXTENT

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
102	64	24	46	22	22	22
103	35	28	57	35	53	10
104	38	24	40	35	53	10
105	7	9	24	43	116	1
106	68	33	47	29	20	3
107	54	46	44	33	20	3
108	11	23	80	45	30	11
109	9	38	70	44	34	5
110	9	49	75	35	21	11
111	4	22	76	59	34	5
112	8	37	78	41	22	14
113	5	33	63	54	32	13
114	4	49	70	47	14	16
115	6	22	75	62	21	14
116	10	11	44	61	73	1
117	12	19	36	63	68	2
118	11	18	43	58	68	2

1 = NOT AT ALL

3 = SOME EXTENT

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<u>Question</u>	<u>Frequency Answered</u>		
	<u>1</u>	<u>2</u>	<u>0</u>
119	62	136	2
120	17	182	1
121	2	198	0
122	18	182	0
1 = YES	2 = NO	0 = DON'T KNOW	

<u>Question</u>	<u>Frequency Answered</u>					
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
123	60	8	30	49	44	9
124	45	10	31	54	50	10
125	151	1	8	13	21	6
126	105	7	27	32	24	5
127	141	1	17	26	11	4
128	123	2	17	27	25	6
129	150	2	15	18	12	3
130	155	2	14	11	13	5
131	154	1	14	18	8	5

0 = HAVEN'T ATTENDED 1 = NOT HELPFUL 2 = SLIGHTLY HELPFUL

3 = MODERATELY HELPFUL 4 = VERY HELPFUL

5 = EXTREMELY HELPFUL

<u>Question</u>	<u>Frequency Answered</u>					
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
132	65	54	48	15	5	13
0 = NONE 1 = LESS THAN 1 DAY 2 = 1 - 3 DAYS						
3 = 3 - 7 DAYS 4 = 1 - 2 WEEKS 5 = MORE THAN 2 WEEKS						

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
133	6	17	40	26	67	44
134	8	21	41	31	66	33
135	11	23	40	41	65	20
136	5	20	64	53	42	16
137	6	10	31	43	103	7
138	3	7	34	47	93	16
139	3	8	31	46	99	13
140	3	13	33	44	90	17
141	3	5	29	52	98	13
142	127	20	26	14	2	11
143	131	24	18	12	3	12
144	139	28	16	5	2	10
145	109	39	23	14	4	11
146	23	38	58	31	37	13
147	37	42	58	24	30	9
148	52	21	37	14	19	59

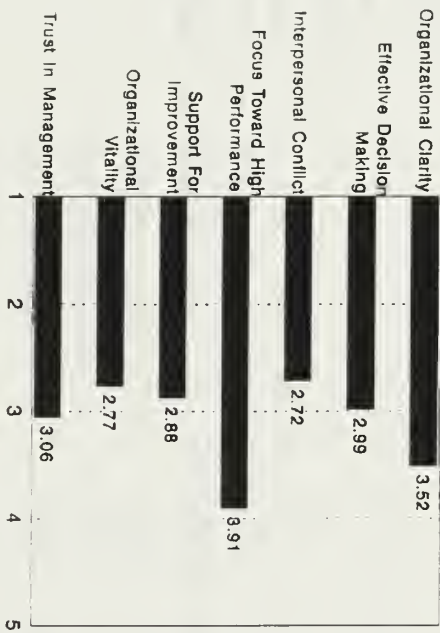
1 = NOT AT ALL 3 = SOME EXTENT 5 = VERY LARGE EXTENT

<u>Question</u>	<u>Frequency Answered</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>0</u>
149	14	19	58	49	22	38
150	25	27	63	46	27	12
151	13	15	38	42	75	17
152	6	17	45	44	80	8
153	15	29	67	36	36	17

1 = NOT AT ALL 3 = SOME EXTENT 5 = VERY LARGE EXTENT

APPENDIX D

GENERAL ORGANIZATIONAL CLIMATE



GENERAL ORGANIZATIONAL CLIMATE

Organizational Clarity

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Organizational Clarity									
1 Are the Organizations Goals Clear to You?	3.765	1.173	200	0.5	4.5	7.5	28.5	23.5	35.5
2 Do you think organizational goals are used to make day-to-day work decisions?	3.425	1.132	200	2.5	2.5	9.5	40.5	25.5	19.5
3 Do you think there are thorough plans for achieving organizational goals?	3.4	1.284	200	3.5	6.0	9.0	32.0	27.5	22.0
4 Do you think there is formal planning for achievement of organizational goals?	3.51	1.244	200	4.0	3.0	8.0	28.5	33.0	22.5

ORGANIZATIONAL CLARITY

Employee Level

Scale	Breakout	Mean	SD	N
Organizational Clarity	Total Sample	3.52	0.90	200
	Top Management	4.63	0.53	2
	Mid Management	4.00	0.84	4
	First Line Sup.	3.53	0.89	36
	Non-supervisor	3.50	0.90	158

GENERAL ORGANIZATIONAL CLIMATE

Effective Decision Making

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Effective Decision Making									
5 Does the current reporting Structure provide you with the information you need to make good decisions?	3.27	1.223	200	1.0	8.5	14.5	27.0	32.5	15.5
6 Do Information systems provide you with useful information that you need for making good decisions?	3.305	1.122	200	2.0	5.5	10.5	37.0	32.0	13.0
7 Are decisions In this organization based on adequate information?	2.99	1.371	200	4.0	3.0	9.0	28.5	33.0	22.5
8 Are the decisions made at the lowest appropriate level?	2.395	1.280	200	6.5	22.0	20.5	32.0	14.5	4.5

EFFECTIVE DECISION MAKING

Employee Level

Scale	Breakout	Mean	SD	N
Effective Decision Making	Total Sample	2.99	0.95	200
	Top Management	3.75	0.00	2
	Mid Management	4.50	0.35	4
	First Line Sup.	3.19	0.78	36
	Non-supervisor	2.90	0.96	158

GENERAL ORGANIZATIONAL CLIMATE

Interpersonal Conflict

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Interpersonal Conflict									
9 Is there friction between people in your department and those in other departments?	3.04	1.352	200	2.0	10.5	24.0	30.0	12.0	21.5
10 Is there conflict between supervisors and workers?	2.955	1.304	200	1.0	13.5	23.5	30.0	15.0	17.0
11 Is there conflict among your coworkers?	2.465	1.272	200	1.0	25.0	30.5	23.5	10.0	10.0
12 Is there friction between people in your work team and those in other work teams?	2.42	1.25	200	4.0	20.0	32.0	25.5	11.0	7.5

INTERPERSONAL CONFLICT

Employee Level

Scale	Breakout	Mean	SD	N
Interpersonal Conflict	Total Sample	2.72	1.02	200
	Top Management	2.13	0.18	2
	Mid Management	2.69	0.24	4
	First Line Sup.	2.63	1.11	36
	Non-supervisor	2.75	1.02	158

GENERAL ORGANIZATIONAL CLIMATE

Focus Toward High Performance

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Focus Toward High Performance									
13 Are you expected to meet demands for high levels of performance?	4.195	1.016	200	0.5	2.0	3.0	17.5	26.0	51.0
14 Are the goals that you are given challenging?	3.60	1.244	200	0.5	6.5	7.5	26.5	28.0	29.0
15 Are you encouraged to give your best work effort?	3.985	1.258	200	1.0	4.5	7.5	20.0	16.0	51.0
16 Are high standards of efficiency emphasized?	3.84	1.242	200	0.0	5.0	13.5	15.5	24.5	41.5

FOCUS TOWARD HIGH PERFORMANCE

Employee Level

Scale	Breakout	Mean	SD	N
Focus Toward	Total Sample	3.91	0.90	200
High Performance	Top Management	4.63	0.53	2
	Mid Management	4.63	0.48	4
	First Line Sup.	3.99	0.79	36
	Non-supervisor	3.86	0.93	158

GENERAL ORGANIZATIONAL CLIMATE

Support For Improvement

Scale/Items	Mean	SD	N	0	1	2	3	4	5
Support For Improvement									
17 Does your supervisor encourage ideas and suggestions about better ways to do the work?	3.285	1.354	200	0.5	12.0	17.0	24.5	21.0	25.0
18 Does management follow up on suggestions for improvement?	2.825	1.184	200	3.0	11.0	21.0	38.5	18.5	8.0
19 Does management reward employees who make improvements in the way the work is done?	2.525	1.315	200	5.0	18.0	27.5	28.0	12.0	9.5
20 Does management encourage creative solutions to work problems?	2.875	1.219	200	2.5	10.5	23.0	36.5	16.0	11.5

SUPPORT FOR IMPROVEMENT

Employee Level

Scale	Breakout	Mean	SD	N
Support For Improvement	Total Sample	2.88	0.98	200
	Top Management	4.63	0.53	2
	Mid Management	3.81	1.30	4
	First Line Sup.	3.12	0.91	36
	Non-supervisor	2.78	0.95	158

GENERAL ORGANIZATIONAL CLIMATE

Organizational Vitality

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Organizational Vitality									
21 Does management take action quickly enough when new opportunities could help the organization?	2.60	1.203	200	4.5	15.0	23.0	36.0	18.5	5.0
22 Is this organization a leader when compared to similar organizations?	3.005	1.535	200	11.5	6.00	10.5	34.0	18.5	19.5
23 Does this organization adapt well to changes in funding levels?	2.750	1.637	200	18.0	6.00	11.0	25.0	28.0	12.0
24 Are management Decisions innovative?	2.725	1.186	200	8.0	6.5	15.5	49.5	16.0	4.5

ORGANIZATIONAL VITALITY

Employee Level

Scale	Breakout	Mean	SD	N
Organizational Vitality	Total Sample	2.77	1.01	200
	Top Management	4.13	0.88	2
	Mid Management	3.88	1.05	4
	First Line Sup.	2.85	0.95	36
	Non-supervisor	2.71	1.00	158

GENERAL ORGANIZATIONAL CLIMATE

Trust In Management

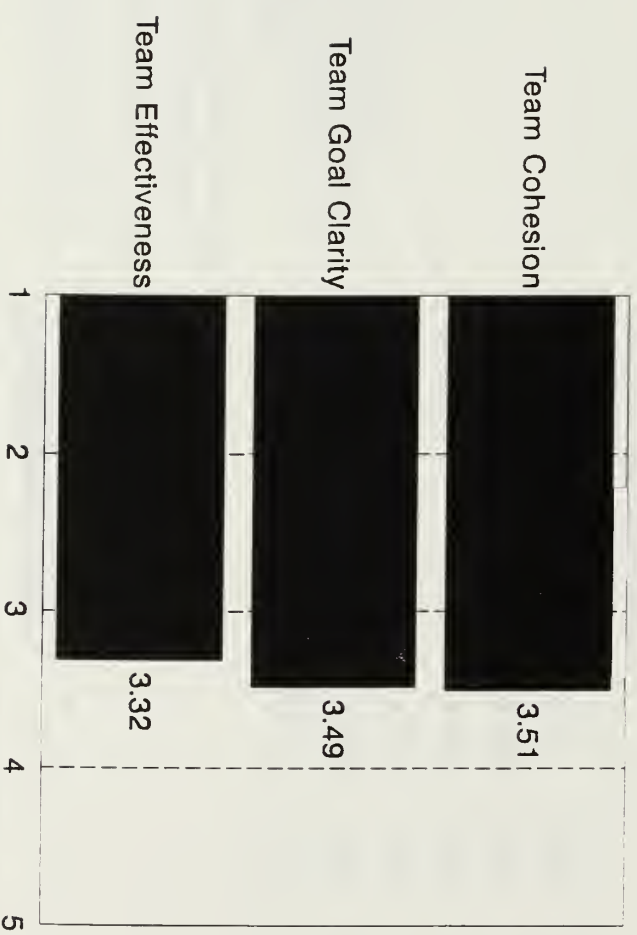
Scales/Items	Mean	SD	N	0	1	2	3	4	5
Trust In Management									
25 Does management treat you with respect?	3.39	1.279	200	1.5	7.5	14.5	27.0	26.0	23.5
26 Does management follow leader through on its commitments?	3.03	1.194	200	2.0	8.5	20.5	34.0	23.5	11.5
27 Do employees trust management?	2.45	1.214	200	4.5	19.5	27.0	28.0	17.5	3.5
28 Do you trust your supervisor?	3.365	1.436	200	1.0	14.0	12.5	23.0	19.0	30.5

TRUST IN MANAGEMENT

Employee Level

Scale	Breakout	Mean	SD	N
Trust In Management	Total Sample	3.06	1.05	200
	Top Management	4.88	0.18	2
	Mid Management	3.88	1.09	4
	First Line Sup.	3.28	0.93	36
	Non-supervisor	2.97	1.06	158

WORK TEAM FUNCTIONING



WORK TEAM FUNCTIONING

Team Cohesion

Scales/Items	Mean	SD	N	1	2	3	4	5
Team Cohesion								
29 Are you satisfied with the effort of others on your work team?	3.555	1.128	200	5.5	10.0	32.5	27.5	24.5
30 Do you feel you are really part of your work team?	3.705	1.210	200	5.0	12.5	24.5	23.0	35.0
31 Are there feelings among members of your work team which tend to pull the team apart?	2.635(3.365)	1.285	200	25.5	20.5	29.0	15.0	10.0
32 Do you look forward to being with the members of your work team?	3.425	1.149	200	5.0	16.5	31.5	25.0	22.0

TEAM COHESION

Employee Level

Scale	Breakout	Mean	SD	N
Team Cohesion	Total Sample	3.51	0.65	200
	Top Management	4.31	0.18	2
	Mid Management	3.74	0.55	4
	First Line Sup.	3.67	0.56	36
	Non-supervisor	3.46	0.67	158

WORK TEAM FUNCTIONING

Team Goal Clarity

Scales/Items	Mean	SD	N	1	2	3	4	5
Team Goal Clarity								
33 Does your work team know exactly what it has to do?	3.710	1.154	200	4.0	12.5	23.5	28.5	31.5
34 Does each member of your work team have a clear idea of the team's goals?	3.580	1.188	200	5.0	15.0	25.0	27.0	28.0
35 Does your supervisor clearly communicate team goals and priorities to team members?	3.175	1.238	200	10.5	19.0	31.5	20.5	18.5

TEAM GOAL CLARITY

Employee Level

Scale	Breakout	Mean	SD	N
Team Goal Clarity	Total Sample	3.49	1.03	200
	Top Management	4.67	0.00	2
	Mid Management	4.00	0.82	4
	First Line Sup.	3.48	0.93	36
	Non-supervisor	3.46	1.05	158

WORK TEAM FUNCTIONING

Team Effectiveness

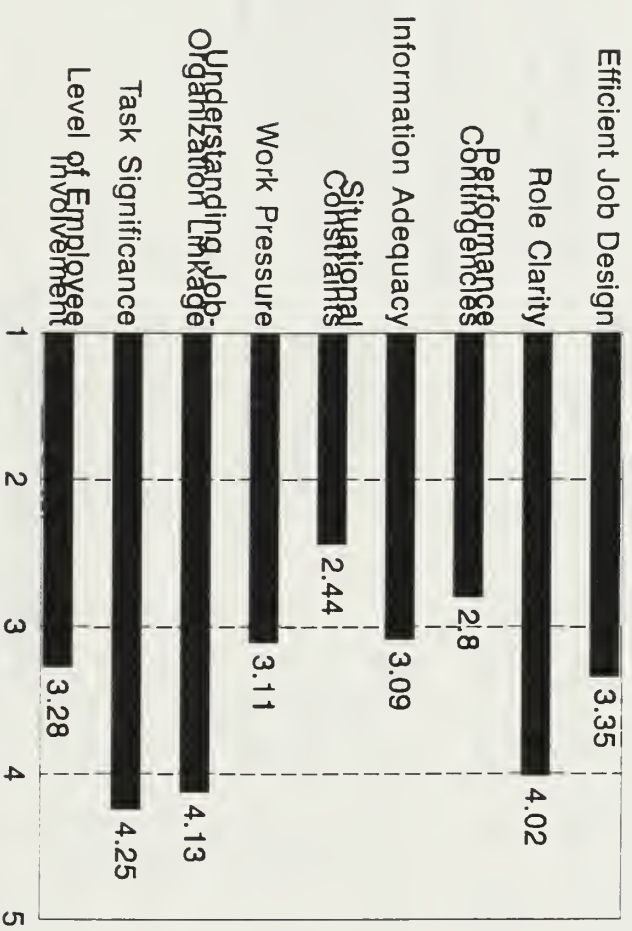
Scales/Items	Mean	SD	N	1	2	3	4	5
Team Effectiveness								
36 Does your work team have efficient work methods?	3.340	1.123	200	7.5	13.0	33.5	30.0	16.0
37 Is the work team organized in the best way to accomplish its duties?	3.160	1.114	200	8.0	19.0	34.0	27.0	12.0
38 Is the workload distributed effectively among members of your work team?	3.170	1.308	200	14.5	15.0	29.0	22.0	18.5
39 Does your work team work together effectively?	3.605	1.065	200	3.5	9.5	34.5	28.0	24.5

TEAM EFFECTIVENESS

Employee Level

Scale	Breakout	Mean	SD	N
Team Effectiveness	Total Sample	3.32	0.92	200
	Top Management	4.25	0.00	2
	Mid Management	3.88	0.43	4
	First Line Sup.	3.52	0.82	36
	Non-supervisor	3.25	0.94	158

JOB CHARACTERISTICS



JOB CHARACTERISTICS

Efficient Job Design

Scales/Items	Mean	SD	N	1	2	3	4	5
Efficient Job Design								
40 Do you have the materials and supplies you need to do your work?	3.345	1.189	200	7.5	17.5	27.0	29.0	19.0
41 Are written Procedures available to help you get the job done?	3.210	1.294	200	12.5	16.5	29.5	20.5	21.0
42 Is someone readily available to help you when a problem occurs?	3.485	1.186	200	7.55	11.5	29.5	28.0	23.5

EFFICIENT JOB DESIGN

Employee Level

Scale	Breakout	Mean	SD	N
Efficient Job Design	Total Sample	3.35	0.96	200
	Top Management	3.83	0.24	2
	Mid Management	3.67	0.90	4
	First Line Sup.	3.37	0.97	36
	Non-supervisor	3.33	0.96	158

JOB CHARACTERISTICS

Role Clarity

Scales/Items	Mean				
	SD	N	1	2	3
43 Do you know what you have to do on your job?	4.310	0.921	200	2.0	2.5
44 Do you know exactly what is expected of you on your job?	4.130	1.09	200	3.0	7.0
45 Are the tasks on your job clearly defined?	3.715	1.188	200	6.0	9.5
46 Do you understand what your supervisor expects of you?	3.945	1.131	200	3.5	8.5
				20.0	26.0
					42.0

ROLE CLARITY

Employee Level

Scale	Breakout	Mean	SD	N
Role Clarity	Total Sample	4.02	0.93	200
	Top Management	5.00	0.00	2
	Mid Management	4.25	0.65	4
	First Line Sup.	4.03	0.93	36
	Non-supervisor	4.01	0.93	158

JOB CHARACTERISTICS

Performance Contingencies

Scales/Items	Mean	SD	N	1	2	3	4	5
Performance Contingencies								
47 Are people rewarded for high quality work?	2.845	1.22	200	18.5	22.5	32.0	18.0	11.0
48 Are people paid fairly for the work they do?	2.830	1.334	200	21.5	20.0	28.5	18.0	14.0
49 Do you receive credit from management when you do a good job?	2.850	1.177	200	17.0	17.5	38.0	18.5	9.0
50 Is there quick recognition for outstanding performance?	2.685	1.222	200	20.0	25.0	31.5	13.5	10.0

PERFORMANCE CONTINGENCIES

Employee Level

Scale	Breakout	Mean	SD	N
Performance Contingencies	Total Sample	2.80	1.00	200
	Top Management	4.88	0.18	2
	Mid Management	3.88	1.16	4
	First Line Sup.	3.26	1.02	36
	Non-supervisor	2.64	0.92	158

JOB CHARACTERISTICS

Information Adequacy

Scales/Items	Mean	SD	N	1	2	3	4	5
Information Adequacy								
51 Does the quality of information you receive help you do your job well?	3.275	1.017	200	5.5	12.5	43.5	26.0	12.5
52 Do you receive information at the right time to help you do your job well?	2.855	0.958	200	8.5	23.5	47.0	16.0	5.0
53 Do you receive enough information to do your job well?	3.130	0.999	200	5.0	20.0	41.0	25.0	9.0

INFORMATION ADEQUACY

Employee Level

Scale	Breakout	Mean	SD	N
Information Adequacy	Total Sample	3.09	0.86	200
	Top Management	4.17	0.24	2
	Mid Management	3.67	0.94	4
	First Line Sup.	3.09	0.89	36
	Non-supervisor	3.06	0.84	158

JOB CHARACTERISTICS

Situational Constraints

Scales/Items	Mean	SD	N	1	2	3	4	5
Situational Constraints								
54 Do you have to depend on co-workers who are not well trained?	2.570	1.254	200	24.0	29.0	21.0	18.0	8.0
55 Do you have to follow policies and procedures that are wrong?	2.405	1.117	200	25.0	29.5	30.5	10.0	5.0
56 Do your work surroundings get in the way of doing your job?	2.260	1.293	200	39.0	22.5	20.0	10.5	8.0
57 Do you have problems getting the information you need to do your job well?	2.535	1.107	200	19.5	31.5	30.0	14.0	5.0

SITUATIONAL CONSTRAINTS

Employee Level

Scale	Breakout	Mean	SD	N
Situational Constraints	Total Sample	2.44	0.86	200
	Top Management	2.25	1.06	2
	Mid Management	2.50	1.06	4
	First Line Sup.	2.39	0.75	36
	Non-supervisor	2.46	0.88	158

JOB CHARACTERISTICS

Work Pressure

Scales/Items	Mean	SD	N	1	2	3	4	5
Work Pressure								
58 Are you given enough time to complete your work?	3.29(2.71)	1.159	200	6.5	14.0	34.5	26.0	17.0
59 Do you have too much work for one person to do?	2.690	1.365	200	27.5	17.5	28.5	15.5	13.0
60 Are you required to do more than one thing at a time?	3.775	1.217	200	6.5	6.0	24.5	23.5	37.5
61 Are you given extra work without regard to the work you already have to do?	3.265	1.309	200	12.0	16.0	26.5	22.5	23.0

WORK PRESSURE

Employee Level

Scale	Breakout	Mean	SD	N
Work Pressure	Total Sample	3.11	0.78	200
	Top Management	3.23	0.88	2
	Mid Management	3.04	0.83	4
	First Line Sup.	3.11	0.72	36
	Non-supervisor	3.11	0.80	158

JOB CHARACTERISTICS

Understanding Job-Organization Linkage

Scales/Items	Mean	SD	N	1	2	3	4	5
Understanding Job-Organization Linkage								
62 Do you understand how your job fits in with other jobs in the organization?	4.050	1.106	200	4.5	4.5	18.0	27.5	45.5
63 Do you understand how your work contributes to the organization's mission?	4.215	1.079	200	3.5	4.5	15.0	21.0	58.0

UNDERSTANDING JOB-ORGANIZATION LINKAGE

Employee Level

Scale	Breakout	Mean	SD	N
Understanding Job- Organization Linkage	Total Sample	4.13	1.04	200
	Top Management	5.00	0.00	2
	Mid Management	5.00	0.00	4
	First Line Sup.	4.26	0.88	36
	Non-supervisor	4.07	1.07	158

JOB CHARACTERISTICS

Task Significance

Scales/Items	Mean	SD	N	1	2	3	4	5
Task Significance								
64 Are the results of your work likely to affect the lives of other people?	4.165	1.206	200	7.0	3.5	13.0	19.0	57.5
65 Are a lot of other people affected by how well your work gets done?	4.225	1.029	200	2.5	4.0	17.0	21.5	55.0
66 Do you feel that your job is significant?	4.355	0.987	200	2.5	3.5	11.5	21.0	61.5

TASK SIGNIFICANCE

Employee Level

Scale	Breakout	Mean	SD	N
Task Significance	Total Sample	4.25	0.894	200
	Top Management	5.00	0.00	2
	Mid Management	4.75	0.50	4
	First Line Sup.	4.21	0.88	36
	Non-supervisor	4.23	0.90	158

JOB CHARACTERISTICS

Level of Employee Involvement

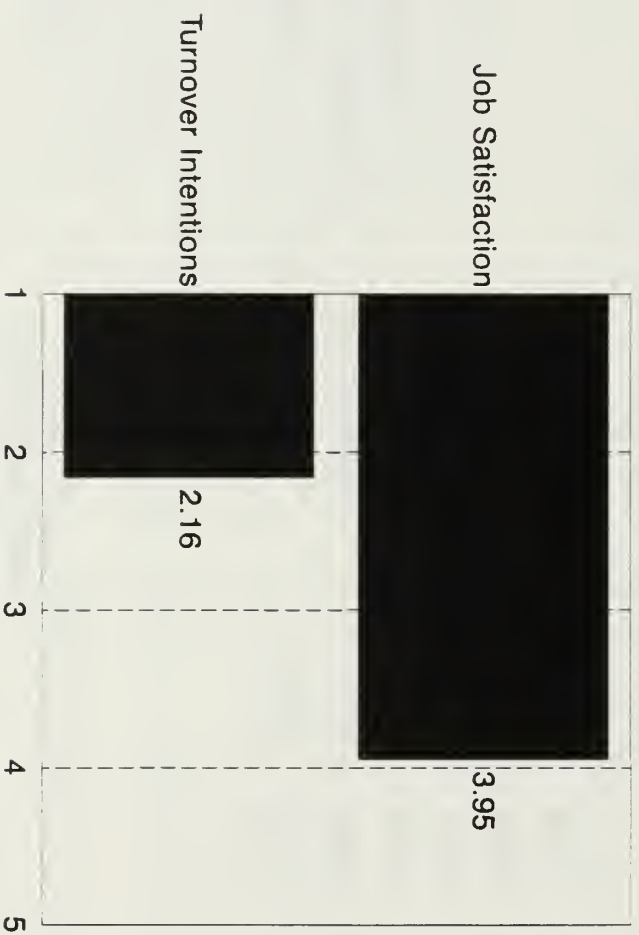
Scales/Items	Mean	SD	N	1	2	3	4	5
Level of Employee Involvement								
67 Can you influence the decisions that affect your work team?	3.555	1.101	200	6.5	6.0	35.5	29.5	22.5
68 Can you influence your supervisor's decisions?	2.880	1.150	200	14.0	21.5	38.0	19.5	9.0
69 Does your supervisor accept your ideas and suggestions?	3.210	1.105	200	7.0	17.5	37.0	24.5	14.0
70 Are you free to decide how to do your job?	3.470	1.194	200	8.5	10.5	29.0	29.5	22.5

LEVEL OF EMPLOYEE INVOLVEMENT

Employee Level

Scale	Breakout	Mean	SD	N
Level of Employee Involvement	Total Sample	3.28	0.89	200
	Top Management	5.00	0.00	2
	Mid Management	3.94	1.09	4
	First Line Sup.	3.78	0.83	36
	Non-supervisor	3.13	0.83	158

WORKER MOTIVATION



WORKER MOTIVATION

Job Satisfaction

Scales/Items	Mean	SD	N	1	2	3	4	5
Job Satisfaction								
71 I am satisfied with my Job?	3.765	1.199	200	5.5	11.5	18.5	30.0	34.5
72 In general, I don't like my Job?	1.87(4.13)	1.166	200	53.0	24.0	11.0	7.0	5.0
73 All In all, I like working here?	3.950	1.185	200	6.0	7.0	15.5	29.0	42.5

JOB SATISFACTION

Employee Level

Scale	Breakout	Mean	SD	N
Job Satisfaction	Total Sample	3.95	0.63	200
	Top Management	4.43	0.00	2
	Mid Management	4.26	0.33	4
	First Line Sup.	4.02	0.59	36
	Non-supervisor	3.93	0.64	158

WORKER MOTIVATION

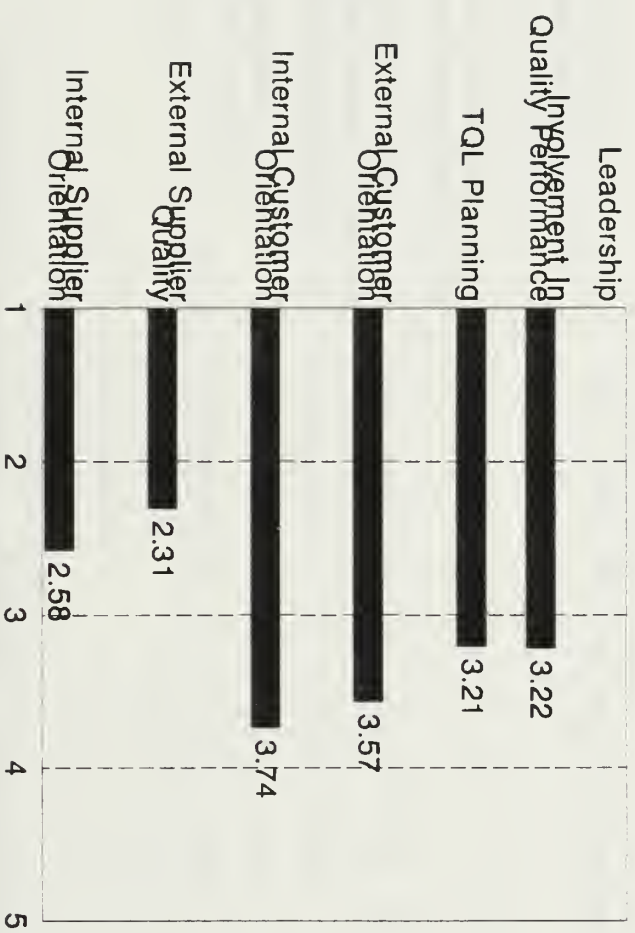
Turnover Intentions

Scales/Items	Mean	SD	N	1	2	3	4	5
Turnover Intentions								
74 I plan on actively looking for a new job in the next year?	2.315	1.552	200	50.0	10.5	14.5	8.0	17.0
75 I often think about quitting?	1.910	1.331	200	62.5	7.5	13.5	9.5	7.0
76 I will probably look for a new job in the next year?	2.260	1.560	200	53.0	9.0	14.5	6.0	17.5

TURNOVER INTENTIONS Employee Level

Scale	Breakout	Mean	SD	N
Turnover Intentions	Total Sample	2.16	1.29	200
	Top Management	1.00	0.00	2
	Mid Management	1.42	0.63	4
	First Line Sup.	2.11	1.28	36
	Non-supervisor	2.21	1.30	158

TQM IMPLEMENTATION



TQL IMPLEMENTATION

Leadership Involvement in Quality Performance

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Leadership Involvement in Quality Performance									
77 Are the senior leaders of this organization committed to providing top quality products or services?	3.590	1.481	200	7.5	4.0	6.0	21.0	27.5	34.0
78 Do our senior leaders regularly review the quality of the organization's work?	2.970	1.727	200	18.0	3.5	10.0	22.0	25.0	21.5
79 Do our senior leaders in this organization set examples of quality performance?	3.100	1.497	200	8.5	9.5	9.0	28.0	26.5	18.5

LEADERSHIP INVOLVEMENT IN QUALITY PERFORMANCE

Employee Level

Scale	Breakout	Mean	SD	N
Leadership Involvement	Total Sample	3.22	1.34	200
In Quality Performance	Top Management	4.83	0.24	2
	Mid Management	4.25	0.88	4
	First Line Sup.	3.42	1.32	36
	Non-supervisor	3.13	1.34	158

TQL IMPLEMENTATION

TQL Planning

Scale/Items	Mean	SD	N	0	1	2	3	4	5
TQL Planning									
80 Does this organization have a long-term quality focus?	3.315	1.767	200	15.5	4.5	3.5	20.5	21.5	34.5
81 Is quality improvement seen as just another organizational program?	2.80(3.20)	1.501	200	9.0	13.5	15.0	29.0	18.5	15.0
82 Is TQL incorporated into the overall organizational strategy?	3.245	1.478	200	8.0	3.0	14.0	25.0	28.5	22.5
83 Are TQL activities consistent with the long term goals of the organization?	3.065	1.680	200	15.5	3.5	8.5	26.0	24.5	22.0

TQL PLANNING

Employee Level

Scale	Breakout	Mean	SD	N
TQL Planning	Total Sample	3.21	1.08	200
	Top Management	4.10	0.00	2
	Mid Management	4.29	0.43	4
	First Line Sup.	3.28	1.11	36
	Non-supervisor	3.15	1.07	158

TOL IMPLEMENTATION

External Customer Orientation

Scales/Items	Mean	SD	N	0	1	2	3	4	5
External Customer Orientation									
84 Do you understand the needs of this organization's external customers?	3.905	1.386	200	4.6	4.0	4.0	17.0	25.0	45.5
85 Does the organization focus on meeting the needs of external customers?	3.960	1.239	200	3.5	2.5	3.5	18.0	30.0	42.5
86 Does management try to plan ahead for changes in external customers requirements?	2.915	1.683	200	17.0	5.5	8.5	25.5	25.0	16.5
87 Has management clearly identified its external customers to you?	3.500	1.449	200	3.0	10.5	8.5	23.5	20.5	34.0

EXTERNAL CUSTOMER ORIENTATION

Employee Level

Scale	Breakout	Mean	SD	N
External Customer Orientation	Total Sample	3.57	1.14	200
	Top Management	4.63	0.53	2
	Mid Management	4.69	0.38	4
	First Line Sup.	3.85	1.09	36
	Non-supervisor	3.47	1.14	158

TQL IMPLEMENTATION

Internal Customer Orientation

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Internal Customer Orientation									
88 Do you understand the needs of your Internal customers?	3.860	1.334	200	3.5	4.5	5.0	19.5	24.5	43.0
89 Do you believe you are meeting the needs of your Internal customers?	3.815	1.364	200	6.0	2.5	3.0	19.5	30.5	38.5
90 Do you plan ahead for changes in internal customer requirements?	3.410	1.346	200	6.0	4.0	8.0	29.0	31.0	22.0
91 Do you know who Internal customers are?	3.865	1.434	200	5.0	5.05	4.0	18.0	20.5	47.5

INTERNAL CUSTOMER ORIENTATION

Employee Level

Scale	Breakout	Mean	SD	N
Internal Customer Orientation	Total Sample	3.74	1.20	200
	Top Management	4.75	0.35	2
	Mid Management	4.31	0.31	4
	First Line Sup.	3.92	1.32	36
	Non-supervisor	3.67	1.18	158

TQM IMPLEMENTATION

External Supplier Quality

Scales/Items	Mean	SD	N	0	1	2	3	4	5
External Supplier Quality									
92 Does management actively monitor the quality of external suppliers' products or services?	2.810	1.702	200	19.5	5.0	7.5	27.0	25.0	18.0
93 Has management defined the quality requirements that external suppliers must meet?	2.635	1.711	200	22.0	7.0	5.5	28.5	25.0	12.0
94 Does management communicate the organization's quality requirements to external suppliers?	2.435	1.795	200	28.5	5.0	6.5	26.5	21.5	12.0
95 Is management working toward fewer external suppliers?	1.350	1.572	200	47.5	13.5	12.0	14.5	8.5	4.0

EXTERNAL SUPPLIER QUALITY

Employee Level

Scale	Breakout	Mean	SD	N
External Supplier Quality	Total Sample	2.31	1.37	200
	Top Management	3.13	0.18	2
	Mid Management	3.25	0.20	4
	First Line Sup.	2.55	1.29	36
	Non-supervisor	2.22	1.39	158

TOL IMPLEMENTATION

Internal Supplier Quality

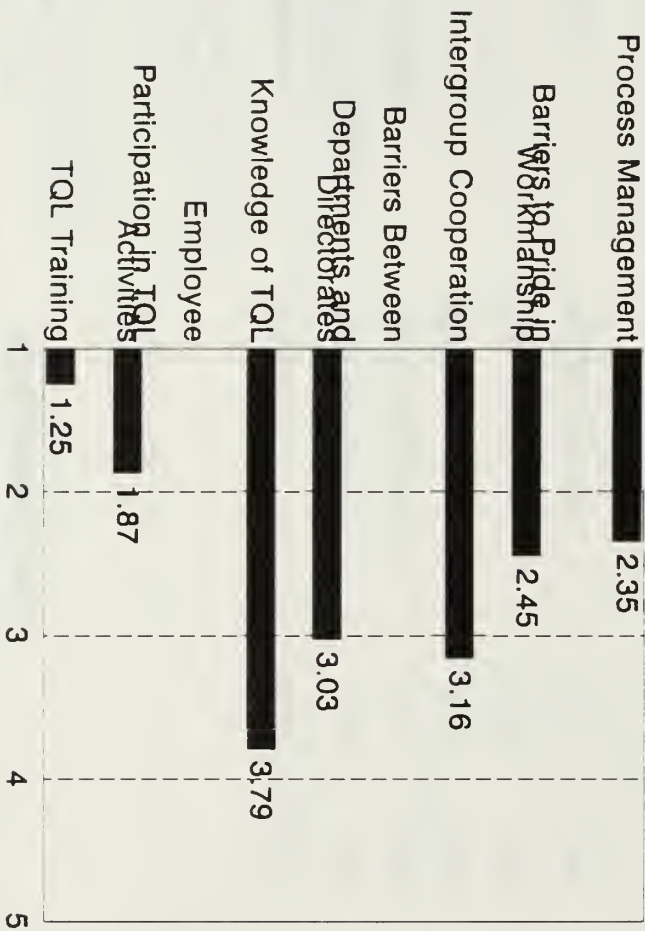
Scales/Items	Mean	SD	N	0	1	2	3	4	5
Internal Supplier Quality									
96 Is the quality of internal suppliers' products or services monitored?	2.655	1.700	200	23.0	2.0	9.0	32.5	19.5	14.0
97 Have quality requirements been defined for your internal suppliers?	2.535	1.727	200	25.5	3.0	9.5	27.5	23.5	11.0
98 Have quality requirements been communicated to your internal suppliers?	2.445	1.738	200	27.5	3.5	7.5	30.5	20.5	10.5
99 Do you believe your quality requirements are being met by internal suppliers?	2.675	1.520	200	16.0	7.5	10.0	34.0	24.5	8.0

INTERNAL SUPPLIER ORIENTATION

Employee Level

Scale	Breakout	Mean	SD	N
Internal Supplier Orientation	Total Sample	2.58	1.42	200
	Top Management	4.63	0.53	2
	Mid Management	2.94	1.72	4
	First Line Sup.	2.89	1.39	36
	Non-supervisor	2.47	1.40	158

TQL IMPLEMENTATION (Continued)



TQM IMPLEMENTATION

Process Management

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Process Management									
100 Do you use any of the seven basic graphical tools to help improve processes?	2.320	1.572	200	8.0	34.5	14.5	17.5	11.5	14.0
101 Do you collect process data?	2.365	1.651	200	9.5	34.0	11.5	17.5	10.5	17.0
102 Have you developed process measures?	2.240	1.541	200	11.0	32.0	12.0	23.0	11.0	11.0
103 Does your work team apply process improvement methods to critical processes?	2.485	1.520	200	13.0	17.5	14.0	28.5	17.5	9.5

PROCESS MANAGEMENT

Employee Level

Scale	Breakout	Mean	SD	N
Process Management	Total Sample	2.35	1.30	200
	Top Management	3.50	0.00	2
	Mid Management	3.31	2.25	4
	First Line Sup.	2.74	1.40	36
	Non-supervisor	2.22	1.23	158

TQL IMPLEMENTATION

Barriers to Pride in Workmanship

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Barriers to Pride in Workmanship in Workmanship									
104 Does your performance appraisal system create barriers to taking pride in workmanship?	3.055	1.605	200	5.0	19.0	12.0	20.0	17.5	26.5
105 Can you tell when you have done a good job?	4.25(1.75)	1.105	200	0.5	3.50	4.55	12.0	21.5	58.0
106 Are you forced to use equipment or materials that will produce poor-quality results?	2.455	1.385	200	1.5	34.0	16.5	23.5	14.5	10.0
107 Are there barriers here that prevent you from taking pride in your work?	2.550	1.348	200	1.5	27.0	23.0	22.0	16.5	10.0

BARRIERS TO PRIDE IN WORKMANSHIP

Employee Level

Scale	Breakout	Mean	SD	N
Barriers To Pride In	Total Sample	2.45	0.83	200
Workmanship	Top Management	2.75	0.18	2
	Mid Management	2.87	1.02	4
	First Line Sup.	2.30	0.74	36
	Non-supervisor	2.46	0.85	158

TQL IMPLEMENTATION

Intergroup Cooperation

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Intergroup Cooperation									
108 Do work teams in your Department/Directorate understand each others goals and objectives?	3.135	1.283	200	5.5	5.5	11.5	40.0	22.5	15.0
109 Do work teams in your Department/directorate work together to achieve one another's goals and objectives?	3.205	1.208	200	2.5	4.5	19.0	35.0	22.0	17.0
110 Do work teams in your department/directorate understand one another's problems and difficulties?	2.855	1.229	200	5.5	4.5	24.5	37.5	17.5	10.5
111 Do work teams in your department/directorate get along with one another?	3.410	1.108	200	2.5	2.0	11.0	38.0	29.5	17.0

INTERGROUP COOPERATION

Employee Level

Scale	Breakout	Mean	SD	N
Intergroup Cooperation	Total Sample	3.16	0.98	200
	Top Management	3.75	0.35	2
	Mid Management	3.69	0.38	4
	First Line Sup.	3.22	0.96	36
	Non-supervisor	3.12	1.00	158

TQL IMPLEMENTATION

Barriers Between Departments/Directorates

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Barriers Between Departments/Directorates									
112 Do people in your Department understand the goals and objectives of other departments?	2.950	1.275	200	7.0	4.0	18.5	39.0	20.5	11.0
113 Do people in your department work with people in other departments to achieve one another's goals and objectives?	3.180	1.318	200	6.5	2.5	16.5	31.5	27.0	16.0
114 Do people in your department understand the problems and difficulties of people in other departments?	2.850	1.243	200	8.0	2.0	24.5	35.0	23.5	7.0
115 Are there good relations between different departments?	3.140	1.256	200	7.0	3.0	11.0	37.5	31.0	10.5

BARRIERS BETWEEN DEPARTMENTS/DIRECTORATES

Employee Level

Scale	Breakout	Mean	SD	N
Barriers Between Departments/Directorates	Total Sample	3.03	1.02	200
	Top Management	3.75	0.00	2
	Mid Management	3.19	0.13	4
	First Line Sup.	3.07	0.84	36
	Non-supervisor	3.01	1.08	158

TQL IMPLEMENTATION

Knowledge of TQL

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Knowledge of TQL									
116 Do you understand basic TQL concepts?	3.865	1.150	200	0.5	5.0	5.5	22.0	30.5	36.5
117 Do you understand TQL well enough to use it in your job?	3.750	1.243	200	1.0	6.0	9.5	18.0	31.5	34.0
118 Do you understand TQL well enough to improve your work process?	3.740	1.256	200	1.0	5.5	9.0	21.5	29.0	34.0

KNOWLEDGE OF TQL

Employee Level

Scale	Breakout	Mean	SD	N
Knowledge of TQL	Total Sample	3.79	1.15	200
	Top Management	5.00	0.00	2
	Mid Management	4.33	0.82	4
	First Line Sup.	3.99	1.09	36
	Non-supervisor	3.71	1.17	158

TQL IMPLEMENTATION

Employee Participation in TQL Activities

Scales/Items	Mean	SD	N	0	1	2
Employee Participation in TQL Activities						
119 Have you served as a member of a Process Action Team?	1.670	0.492	200	1.0	31.0	68.0
120 Have you served as a member of a Quality Management Board?	1.905	0.311	200	0.5	8.5	91.0
121 Have you served as a member of the Executive Steering Committee?	1.990	0.100	200	0.0	1.0	99.0
122 Have you served as a TQL team advisor/facilitator?	1.910	0.287	200	0.0	9.0	91.0

EMPLOYEE PARTICIPATION IN TQL ACTIVITIES

Employee Level

Scale	Breakout	Mean	SD	N
Employee Participation in TQL Activities	Total Sample	1.87	0.20	200
	Top Management	1.50	0.35	2
	Mid Management	1.69	0.47	4
	First Line Sup.	1.79	0.24	36
	Non-supervisor	1.90	0.17	158

TQL IMPLEMENTATION

TQL Training

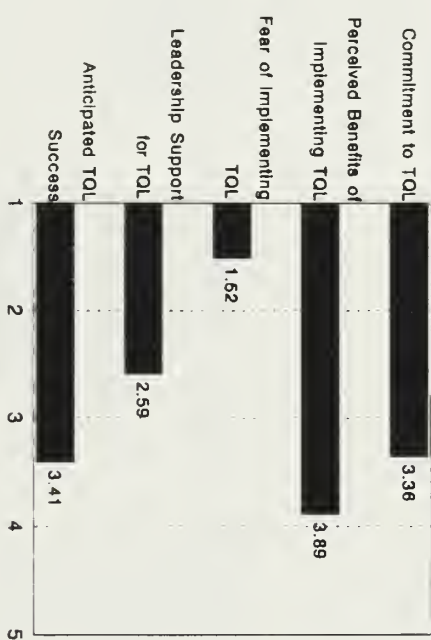
Scales/Items	Mean	SD	N	0	1	2	3	4	5
TQL Training									
123 TQL Orientation Briefing by Senior Leader?									
124 Introduction to TQL?	2.180	1.659	200	30.0	4.00	15.0	24.5	22.0	4.5
125 Fundamentals of TQL?	2.420	1.583	200	22.5	5.0	15.5	27.0	25.0	5.0
126 Implementing TQL?	0.850	1.572	200	75.5	0.5	4.0	6.5	10.5	3.0
	1.390	1.625	200	52.5	3.5	13.5	16.0	12.0	2.5
127 Basic Quantitative Methods and Tools for Process Improvement									
128 Team Skills and Concepts for TQL?	0.885	1.457	200	70.5	0.5	8.5	13.0	5.5	2.0
129 Methods for Managing Quality?	1.235	1.874	200	61.5	1.0	8.5	13.5	12.5	3.0
130 Strategic Planning for Quality?	0.745	1.382	200	75.0	1.0	7.5	9.0	6.0	1.5
	0.700	1.404	200	77.5	1.0	7.0	5.5	8.5	2.5
131 Advanced Quantitative Methods and Tools for Process Improvement?									
132 How much training have you received in classes not listed above?	0.700	1.371	200	77.0	0.5	7.0	9.0	4.0	2.5
	1.400	1.407	200	32.5	27.0	24.0	7.5	2.5	6.5

TQL TRAINING

Employee Level

Scale	Breakout	Mean	SD	N
TQL Training	Total Sample	1.25	1.03	200
	Top Management	2.85	1.34	2
	Mid Management	2.23	0.13	4
	First Line Sup.	1.12	0.82	36
	Non-supervisor	1.24	1.06	158

TOL SUPPORT



TQL SUPPORT

Commitment to TQL

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Commitment to TQL									
133 Does military management in this organization want to Implement TQL?	2.995	1.917	200	22.0	3.00	8.50	20.0	13.0	33.5
134 Does civilian management in this organization want to Implement TQL?	3.135	1.795	200	18.5	4.0	10.5	20.5	15.5	33.0
135 Does your supervisor want to Implement TQL?	3.330	1.626	200	10.0	5.5	11.5	20.0	20.5	32.5
136 Do your co-workers want to implement TQL?	3.295	1.396	200	8.0	2.5	10.0	32.0	26.5	21.0
137 Do you want to Implement TQL?	4.030	1.396	200	3.5	3.0	5.0	15.5	21.5	51.5

COMMITMENT TO TQL

Employee Level

Scale	Breakout	Mean	SD	N
Commitment To TQL	Total Sample	3.36	1.17	200
	Top Management	4.50	0.42	2
	Mid Management	4.20	0.71	4
	First Line Sup.	3.52	0.99	36
	Non-supervisor	3.28	1.21	158

TQL SUPPORT

Perceived Benefits of Implementing TQL

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Perceived Benefits of Implementing TQL									
138 Can TQL increase productivity?	3.860	1.477	200	8.0	1.5	3.5	17.0	23.5	46.5
139 Can TQL improve quality?	3.955	1.412	200	6.5	1.5	4.0	15.5	23.0	49.5
140 Can TQL improve technical capabilities?	3.770	1.526	200	8.50	1.5	6.5	16.5	22.0	45.0
141 Can TQL improve the organization's reputation?	3.990	1.385	200	6.5	1.5	2.50	14.5	26.0	49.0

PERCEIVED BENEFITS OF IMPLEMENTING TQL

Employee Level

Scale	Breakout	Mean	SD	N
Perceived Benefits of Implementing TQL	Total Sample	3.89	1.32	200
	Top Management	5.00	0.00	2
	Mid Management	4.63	0.75	4
	First Line Sup.	3.85	1.23	36
	Non-supervisor	3.87	1.35	158

TQL SUPPORT

Fear of Implementing TQL

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Fear of Implementing TQL									
142 Do you fear the changes that may result from TQL implementation?	1.555	1.078	200	5.5	63.5	10.0	13.0	7.0	1.0
143 Do you fear the criticism from others in the organization if you use TQL methods?	1.480	1.046	200	6.0	65.5	12.0	9.0	6.0	1.5
144 Do you fear that applying TQL principles will lead you to make incorrect decisions?	1.365	0.675	200	5.0	69.5	14.0	8.0	2.5	1.0
145 Do you fear that you may anger others if you use TQL methods?	1.660	1.109	200	5.5	54.5	19.5	11.5	7.0	2.0

FEAR OF IMPLEMENTING TQL

Employee Level

Scale	Breakout	Mean	SD	N
Fear of Implementing TQL	Total Sample	1.52	0.82	200
	Top Management	1.13	0.18	2
	Mid Management	1.25	0.20	4
	First Line Sup.	1.71	0.91	36
	Non-supervisor	1.48	0.81	158

TQL SUPPORT

Leadership Support for TQL

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Leadership Support for TQL									
146 Does your supervisor practice TQL methods?	2.910	1.460	200	6.5	11.5	19.0	29.0	15.5	18.5
147 Does your supervisor assist you in performing quality improvement activities?	2.705	1.413	200	4.5	18.5	21.0	29.0	12.0	15.0
148 Are your efforts toward implementing TQL considered during performance appraisals?	1.740	1.633	200	29.5	26.0	10.5	18.5	6.0	9.5
149 Do the organizations policies and procedures fit with the objectives of TQL?	2.660	1.633	200	19.0	7.0	9.5	29.0	24.5	11.0
150 Does your supervisor give you enough time to perform quality improvement activities?	2.935	1.397	200	6.0	12.5	13.5	31.5	23.0	13.5

LEADERSHIP SUPPORT FOR TQL

Employee Level

Scale	Breakout	Mean	SD	N
Leadership Support for TQL	Total Sample	2.59	1.14	200
	Top Management	4.10	0.42	2
	Mid Management	3.60	1.60	4
	First Line Sup.	2.73	1.23	36
	Non-supervisor	2.51	1.10	158

TQL SUPPORT

Anticipated TQL Success

Scales/Items	Mean	SD	N	0	1	2	3	4	5
Anticipated TQL Success									
151 Do you think TQL will work in this organization?	3.500	1.604	200	8.5	6.5	7.5	19.0	21.0	37.5
152 Does this organization need to improve quality?	3.755	1.351	200	4.0	3.0	8.5	22.5	22.0	40.0
153 Is the TQL philosophy consistent with what people believe in this organization?	2.990	1.456	200	8.5	7.5	14.5	33.5	18.0	18.0

ANTICIPATED TQL SUCCESS

Employee Level

Scale	Breakout	Mean	SD	N
Anticipated TQL Success	Total Sample	3.42	1.11	200
	Top Management	4.50	0.24	2
	Mid Management	3.75	0.69	4
	First Line Sup.	3.37	1.03	36
	Non-supervisor	3.40	1.13	158

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